A WORLD OF OPPORTUNITY IS WAITING FOR YOU AT MONASH

Your chance to transform lives through IT
The Faculty of IT at Monash is a place where people can explore big ideas – and implement them quickly.

As the largest university in Australia, you can do things at Monash that you simply can’t do anywhere else. We have the size, resources and global profile to solve the toughest challenges of today. Embedding an interdisciplinary ethos in all we do, we’re already having a positive social impact on the world.

We’re seeking people who are passionate about our mission: IT for Social Good. As part of this commitment, we wholeheartedly embrace a diverse and inclusive culture, and continually celebrate women in IT. Monash is a place where people of all genders and ethnicities can thrive.

We also observe our field with open minds and critical eyes. It’s how we’re able to identify hidden equity issues – and drive change where it’s needed most.

Now with over 200 academics and professional staff, and over 250 graduate research students, Monash is home to one of the largest and fastest-growing IT faculties in the world.

This is a unique and exciting time to join us. So if you’re ready to participate in a pioneering community, we want to hear from you.

Ann Nicholson
Interim Dean, Faculty of IT
Monash University
DRIVEN BY STRONG VALUES

Stemming from our vision and mission, our values guide our actions and attitudes to ensure we create a culture based on trust, respect and excellence.

**Mission**
Contribute to society through innovative IT research and education using interdisciplinary approaches as a vehicle for social good.

**Vision**
Top 50 in the world by subject. Key strategic research initiatives at Monash to include IT research either as leader or key component.
We strive for excellence in everything we do and expect the same of others.

We do things because we believe in them.

We know we are at our best when we take care of the wellbeing of ourselves, our families and our colleagues.

We have the courage to radically shake things up when needed.

We approach relationships with courtesy, professionalism and empathy.

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#did_u_feed_the_dog
#love_it
#go_for_it
#don't_be_a_jerk
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A WORLD-LEADING, DEDICATED IT FACULTY

At Monash, we understand that IT sits at the core of daily life. It’s ingrained in every industry. And it shapes how we learn, work and interact.

TOP 100
Monash is ranked in the top 100 in the world for Computer Science and Information Systems.
QS World University Rankings by Subject 2019

RANKED #1
For four consecutive years, Monash has ranked #1 in Australia for Engineering & technology.
Times Higher Education World University Subject Rankings 2016-2019
IT isn’t a side interest to us. It’s fundamental to everything we do. With the only dedicated IT faculty in the prestigious Group of Eight universities – and one of only a handful in the world – Monash embeds IT in every strategic research initiative across the university.

We’re also committed to investing in the world’s best researchers to ensure this continues to happen.

Staying true to our mission ‘IT for Social Good’, we look for every opportunity to combine the greatest minds in our field with advanced, innovative technology.

It’s how we’re transforming IT into a powerful vehicle that drives positive change – now and into the future.

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WELL ABOVE WORLD STANDARD
Monash is ranked ‘well above world standard’ in Artificial Intelligence and Image Processing. We’re also the only Australian university rated as ‘above world standard’ across every category in the field of Information and Computing Sciences.


GLOBAL
As a global faculty, our researchers collaborate with professionals across more than 60 countries, including the UK, US, China and Europe.

SOCIAL GOOD
Monash is leading over 200 current and future projects that aim to create a safer, fairer and healthier world – and a more sustainable, ethical future.
‘I was drawn to Monash because of its positive vibe and collaborative work culture.’
I’ve always been an analytical and abstract thinker. I love problem-solving and creative activities, which drew me to software programming in high school and later fuelled my life-long engagement with the wider software engineering discipline – especially the human and social aspects.

I was drawn to Monash because of its positive vibe and collaborative work culture. The drive people have for world-class excellence, innovation and meaningful societal contributions is infectious. I wanted to be part of this tribe!

My time here has been great. I’m enjoying the research we do on human-centred software engineering topics at the HumaniSE lab and in our wider Software Engineering research group, while collaborating with colleagues from across Australia and the world. Monash provides a robust platform and an encouraging environment for exploring cutting-edge technologies and conducting path-breaking research to create a positive societal impact.

As Associate Dean (Academic Workforce), I’m working with my team to streamline processes surrounding academic professional development, talent and succession planning, performance management and workload management – while keeping an eye out for early career academics and those from diverse and underrepresented backgrounds.

The resilience, agility and realist positivity shown by our people during challenges has further deepened the admiration I have for my colleagues.
HOW MONASH IT IS CHANGING THE WORLD

Driven by our mission ‘IT for Social Good’, Monash IT researchers enjoy a collaborative, cross-disciplinary environment where they can explore technology to positively disrupt our world.

Our research tackles social, economic and environmental issues – from the simple and everyday to the intricate and complex.

With many projects always on the go, we’re currently developing IT to:

- Enhance law enforcement
- Change the way we use energy
- Reduce carbon emissions
- Predict epileptic seizures
- Map the world’s vegetation from space
- Detect driver distraction
- Map ancient cities

KEY THEMES

DIGITAL HEALTH

Digital Health is a research growth area that involves collaboration between different faculties across our university.

Here, Monash IT researchers engage in a broad range of socio-technical projects to address health issues of all kinds and complexities.
RESEARCH STRENGTHS

Our breadth and depth of expertise is unsurpassed across all major areas of IT.

We have the leading researchers in software engineering, cryptocurrency and blockchain, AI, optimisation and human-centred computing. We also have the largest group of data scientists of any research institution in the southern hemisphere.

Our faculty is organised into the following areas of research expertise:

Data Science and Artificial Intelligence
Working with some of the world’s leading data scientists, we’re using data to better understand the past, manage the present and prepare for the future.

With unrivalled expertise in AI, machine learning, modelling, optimisation and visualisation, we’re solving real-world problems to advance industry, commerce, governance and research.

Human-Centred Computing
We are Australia’s leading data visualisation and interaction design research group – and pioneers in immersive analytics. Through our research in this area, we ensure that humans remain at the heart of emerging technologies.

By exploring a range of areas, including computer creativity, visualisation, data analytics, AR and VR, we’re creating immersive systems to enhance capabilities, knowledge and experiences.

Software Systems and Cybersecurity
Our expertise here spans blockchain, biometric security, cryptocurrency technology, big data security and other critical areas of cybersecurity and software systems.

Supported by three leading research groups in Australia, we’re always looking for ways to organise and protect valuable information in a rapidly-changing online data ecosphere.

IT FOR SUSTAINABILITY

We are developing innovative technology for agriculture and pioneering the future of construction.

We’re also embedded in the Monash Energy Institute – the energy research front of our university. Collaborating with industry, we drive the sustainable generation, storage, distribution, visualisation and end-use of energy.

AI FOR SOCIAL GOOD

To unlock the power of AI, we work with a broad league of partners across medicine, finance, agriculture and law.

In doing so, we’re expanding our understanding, transforming communication – and helping companies enhance their customers’ experiences.
INSTITUTES, CENTRES AND LABS

At Monash IT, we believe that knowledge is power – especially when it’s diverse. That’s why as part of our team, you’ll be able to draw upon the projects, insights, ideas and skills of leading researchers via our institutes, centres and labs.

Action Lab

Focusing on human-centred computing, Action Lab conducts real-world research with communities, NGOs and governments. Configured for impact, the Lab strives to use digital technologies to transform the roles citizens play in the design and delivery of health and wellbeing, education and media initiatives.

Artificial Intelligence for Law Enforcement and Community Safety (AiLECS) Lab

A partnership between Monash and the Australian Federal Police, the AiLECS Lab investigates how AI can make our communities safer. The Lab builds on past research projects on reducing trauma among officers by using machines to classify distressing child exploitation materials.

Monash Blockchain Technology Centre (MBTC)

The MBTC is responsible for the blockchain research lab, education and training. The Centre’s key capabilities span consensus, security, efficiency and privacy. Its work can also be applied in a range of areas, including digital health and smart energy.

Centre for Learning Analytics Monash (CoLAM)

CoLAM develops next-generation data analytics that unlock the potential of digital data to optimise human learning and education.

Monash Data Futures Institute

Monash Data Futures believes that AI and data science can change the world for the better. The Institute creates transformative, lasting change in governance and policy, health sciences and sustainable development.

Emerging Technologies Research Lab

This lab sits across the Faculty of IT and the Faculty of Art, Design & Architecture. It investigates an emerging technological environment where automation, AI and data bring questions of ethics, responsibility, user experience and engagement. Importantly, its core themes include energy futures, future mobilities, public space, e-waste and design for wellbeing.
Monash Energy Institute
The Monash Energy Institute is a collaboration between the Faculty of IT, Faculty of Engineering and Monash Business School. The Institute undertakes research and development that will create innovative products and services in the energy sector across the globe.

Exertion Games Lab
This Lab draws from interaction design and human-computer interaction, sports, health, psychology and embodiment thinking to design interactive technology that helps us discover who we are – and who we want to be.

HumaniSE Lab
The HumaniSE Lab explores approaches to creating software systems that account for ‘human’ elements. It also finds new ways to capture and use human-centric software requirements in model-driven software engineering – and verify that systems meet these requirements.

Immersive Analytics Lab (IALab)
The IALab is internationally renowned for its research into informational visualisation, accessibility and responsive document layout. Strongly connected with industry on a global scale, the Lab’s technology is used by some of the world’s biggest brands such as Apple and Microsoft.

Inclusive Technologies Lab
Led by an interdisciplinary team of researchers, the Inclusive Technologies Lab is known for its innovative, community-driven research. The Lab explores how emerging technologies can be used to improve the lives of people living with disability – while empowering their families and educators.

Laboratory for Dialogue Research (LDR)
The LDR designs, builds and evaluates cutting-edge dialogue systems underpinned by machine learning, natural language processing and other AI technologies. It partners closely with other centres in our faculty, the Faculty of Engineering, government, industry and universities around the world.

Operationalizing Values in Software (OVIS) Lab
Established in 2018, OVIS Lab focuses on embedding human values into methodologies, tools and guidelines to drive software for social good.

SensiLab
SensiLab is a joint venture between the Faculty of IT and Faculty of Art, Design & Architecture. Driven by a diverse team, the lab explores the creative possibilities of technology – including how it can change us and ways we can harness its power.

Woodside FutureLab
The Woodside FutureLab is dedicated to uncovering technology innovation opportunities across the oil and gas industry.

STATE-OF-THE ART FACILITIES
With our world-leading facilities, you will have the tools and support to explore your ideas – and make a real difference.

Future Control Room (FCR)
Designed as a proxy to future energy system control rooms, the FCR captures and displays heterogeneous real-time (streaming) datasets on a 37-megapixel wall. This technology drives research into improved monitoring and control systems, reaching into advanced data integration, mining and ultimately, the autonomous operation of smart energy systems.

Woodside Building for Technology and Design
Innovative and energy-efficient, this building hosts a range of cutting-edge spaces that support and augment our research in human-centred computing, software systems, cybersecurity, data science and AI.
‘At Monash, I get to solve real-world issues’
I made the transition to Monash in 2018 with my partner, Leimin Tian. Melbourne was an unfamiliar city for both of us, but we settled in quickly. We enjoyed a brief period of sponsored accommodation before finding the right place to live – which is around the corner from the university.

My interest is in decision-making under uncertainty in a multi-agent system. I’m particularly passionate about applying this methodology to energy issues. For example, coordinating charging batteries to match fluctuations in renewable power generation and satisfy grid capacity constraints.

At Monash, I get to solve real-world issues – like the reliable integration of renewable technologies into a broader energy network. It’s vital we work with other disciplines to share knowledge and validate our research. The Monash Energy Institute brings together multiple disciplines and reinforces this validation. It also allows us to engage effectively with industry. I’ve participated in an industry grant scheme which encouraged companies to work with Monash so we could use research expertise to address industry problems.

FRITS DE NIJS
Assistant Lecturer, Data Science and AI

‘In 2017, I went to an AI conference in the US and heard an engaging talk on energy issues in Australia. It was the first time I’d heard of Monash – I was intrigued. And now, here we are, part of the community a couple years on.’
Indigenous Engagement

Increasing the Participation and Success of Indigenous Australians

Aligned with the University’s broader commitment, the Faculty of IT is committed to working in partnership and consultation with Indigenous Elders, organisations and communities.

We embed Indigenous perspectives and content into our curricula and continually undertake projects with Indigenous researchers and communities to make meaningful contributions.

William Cooper Institute

Originally named the Yulendj Indigenous Engagement Unit, the William Cooper Institute helps Indigenous students and staff achieve their aspirations – and ensures our policies and procedures respect their cultures and histories. Some support and resources it offers include:

Elder-in-Residence Aunty Di

Aunty Diane Singh is a Yorta-Yorta/Wemba-Wemba elder, with connections to the Taungurung people. With a long history working in Indigenous education, Aunty Di provides support to Monash students wanting to make connections with the local community or find out more about their own family history and connections.
Dedicated research initiatives
Our researchers are leading projects in partnership with Indigenous Elders and communities that focus on Indigenous cultural heritage, human rights, rights in records and data sovereignty. A stand-out one is Wunungu Awara: Animating Indigenous Knowledges, which aims to use the latest 3D animation technology to record the past, preserve the present, and protect Indigenous languages and knowledge.

Student scholarships and support
We offer scholarships that are designed exclusively for people who identify as Aboriginal or Torres Strait Islanders. These include the Faculty of IT Indigenous Study Support Scholarship and Information Technology Indigenous Merit Scholarship.

The University also offers free, confidential counselling for students who are struggling to cope with studies or are facing issues to do with mental health, relationships, family or addictions.

Mpal app
The William Cooper Institute has created the Mpal app to help Indigenous students and staff with:

- accessing 24/7 phone counselling and booking appointments.
- finding emergency services on and off-campus.
- requesting an on-campus security escort.
- locating security shuttle bus locations.
- reporting incidents or problem behaviour.
- getting quick access to support services.
‘The university provides a great work-life balance, and a wonderful campus experience.’
I was fortunate to pursue my postgraduate studies at Monash and then grow my career through the phases of student, researcher, tutor and teaching support, systems coordinator and now Business Process Improvement Specialist.

A significant part of my role has been leading Project TEA (Transparent Efficient Automated) that aims to streamline processes across various teams in the faculty. I also conduct workshops such as Process Discovery and Value Stream mapping, and upskill teams to build workflows and process automation.

There have been many highlights during my time at Monash. I’ve enjoyed the diverse and inclusive environment – and the strong encouragement for people of any gender, race, religion, background and culture to join. The university also provides a great work-life balance, and a wonderful campus experience. The coffee culture at Clayton is fantastic!

‘I’ve always been passionate about enhancing ways of working and the faculty has given me the chance to put this into action by improving our operations.’

MILAD SAYAD
Business Process Improvement Specialist
WHERE THERE IS DIVERSITY THERE IS STRENGTH

At Monash IT, we embrace our differences and the power that lies within them. We believe that together we can achieve true equality – and be the benchmark that inspires other teams, organisations and industries.
IT’S OUR WAY OF LIFE

Inclusive, open minded and aware. This isn’t a mindset we hope to create. It’s ingrained in the very fibre of our faculty.

We envisage a world where gender and social equity are not goals to achieve – but a way of life we celebrate. To fulfil this vision, we address the imbalances affecting women, people of different ethnicities, First Nations peoples and members of our community living with disability.
INSPIRING THE CHANGEMAKERS OF TOMORROW

Through the following initiatives, we’re encouraging more women to study and work in IT – while nurturing their capacity for leadership.

Women in STEM Entrepreneurship (WISE) Program
WISE helps up to 500 girls in Years 9 and 10 develop an entrepreneurial mindset. Students are widely exposed to design thinking principles, big social themes and the Internet of Things (IoT). They also enjoy immersive activities, ‘big sister’ mentorships and hands-on projects – which culminate in a trip to Silicon Valley, USA.

Conquering Code workshops
At these workshops, we give our students the opportunity to learn from incredible women role models in IT. We also create a supportive environment and provide the tools and knowledge they need to expand their coding capabilities.

Women in IT scholarships
Every year, we offer 50 scholarships to support high-achieving young women in Year 12 who are eager to pursue an undergraduate IT degree.

The Collective
The Collective is a program which aims to create a supportive women in IT student network by building a community of women who support and learn from each other.
FOSTERING A CONNECTED AND INCLUSIVE ENVIRONMENT

We go to great lengths to ensure you feel connected, safe and included while you work and study with us. The following initiatives are just some of the ways we deliver on this promise.

**DiversIT**

A student-led club, DiversIT strives to support underrepresented students who feel marginalised in IT by connecting them with industry, faculty and each other.

**Reasonable workplace adjustments procedure**

Monash makes appropriate and reasonable adjustments to its workplace to ensure equal opportunities for staff with disabilities – and help them meet the requirements of their role.

**Disability Support Services: Peer Mentoring Program**

Our Peer Mentoring Program helps students learn through the experiences of others, while expanding and developing their social network at Monash. Students registered with Disability Support Services can apply and find a student who’s suitable and eager to be their mentor.
Queer 101 training for students
Delivered on demand, this training helps students develop a greater understanding of different genders and sexualities. It also empowers them to make positive changes in support of the LGBTIQ community.

Tech Squads
Tech Squads is designed to help new students transition into university life and give current students the opportunity to participate in a faculty run leadership program.

Ally Network
Allies of the LGBTIQ community at Monash, members of the Ally Network take a proactive stance against discrimination based on sexual orientation, gender identity and intersex status. They also undergo training and participate in various events throughout the year.

Diverse Genders, Sexes and Sexualities (DGSS) Advisory Group
A subcommittee of the Diversity and Inclusion Committee, the DGSS Advisory Group provides a forum for discussion. It also advises on issues related to LGBTIQ students and staff across the University.

Monash Queer Leaders scholarship
This scholarship recognises Monash students who help us create an inclusive, safe culture. It also celebrates those who raise awareness of and enhance understanding in issues affecting people of diverse genders and sexualities.
**CULTIVATING FUTURE LEADERS**

We offer many programs and events to help our staff and students advance their careers and become inspirational leaders.

**Future Women Leaders Conference**

Founded by Monash, this event helps early career researchers and leading academics network, learn and advance their careers.

Featuring ‘Future Women Leaders Awards’, the 2019 conference will be hosted in partnership with several other Australian universities.

**Women’s Mentoring**

This program is designed to support the career progression of our women staff and academics. Through mentorships, participants can build their leadership and professional skills – and learn how to navigate the workplace more effectively.

**Inclusive Leadership Training**

These workshops aim to create a strong knowledge base around the key principles of diversity and inclusion. They also strive to provide practical strategies for developing strong leadership skills, as well as raise awareness of and combat unconscious bias in decision-making.

**AWARDS AND ACCREDITATIONS**

**Athena SWAN**

In 2018, Monash was awarded the Athena SWAN Bronze accreditation. Originating in the UK in 2005, Athena SWAN is an accreditation framework for supporting the recruitment, retention and progression of women in Science, Technology, Engineering, Mathematics and Medicine (STEMM).
Advancing Women’s Research Success Grant
This grant aims to help early to mid-career women academics with primary carer responsibilities to progress in their professional journeys. Through funding, this initiative aims to reduce the impact of career breaks and caring responsibilities on research productivity.

Superstars of STEM
This program celebrates women with outstanding careers – and amplifies the voice of professional STEM women in the media.

In 2019, our very own Dr Kirsten Ellis was crowned one of the Superstars of STEM.

Hopper Down Under
First held in Brisbane in 2019, the Hopper Down Under conference celebrates diversity in technology in the Asia-Pacific. The event is modeled on the AnitaB.org Grace Hopper Celebration, the world’s largest conference for women technologists.

As a proud sponsor and supporter of this event, Monash IT funds academics and students to attend.

Victorian ICT Women Network (Vic ICT for Women)
Vic ICT for Women encourages more women to join ICT – and empowers them to excel, explore and expand their potential. Monash IT sponsors, presents and attends these events. It allows us to extend our influence and educate the professional ICT community through thought-leadership.

Women in Technology Alumni Mentoring program
The Women in Technology Alumni Mentoring program gives women and non-binary IT students the opportunity to form networks, build confidence and focus on career planning with a mentor.

Senior Women’s Shadowing
This program provides high-potential women with access to Monash’s senior executives – and unique opportunities to develop their leadership capabilities.

STEMM Women Academic Network
Attracting over 200 women in STEMM at Monash, this network helps to amplify the voices of its members and connect them with colleagues across the university. It also focuses on increasing mentorship opportunities and offering strong professional support.

WGEA EOCGE
Monash is the only Group of Eight University to hold the prestigious Employer of Choice for Gender Equality (EOCGE) citation from the Workplace Gender Equality Authority (WGEA).

LGBTIQ
Monash was awarded AWEI Silver status in 2019 – placing us in the top 25% of all employers that participated in the Australian Workplace Equity Index (AWEI).
DRIVING DIVERSITY

Here are some of our projects which have made a big impact – and contributed to a more inclusive world.

CREATING A BETTER WORLD

Protecting our children

In 2017, the Australian Federal Police received 9,741 referrals of child exploitation material. Last year, this number almost doubled (17,905).

Monash IT is partnering with the government to automate distressing material classification, characterise dark web behaviour and prioritise file search.

We’re also addressing the significant psychological distress on police officers and investigators caused by depictions of child exploitation, terrorism and murder.

Due to their illegal and disturbing nature, we’ve helped develop ‘data airlock’ server architecture. This technology controls access so tightly that researchers can train algorithms without being exposed to raw data.

The airlock will be used around the world, especially by law enforcement professionals and large platform providers who require content moderation.

Preserving Indigenous culture

Aboriginal and Torres Strait Islanders are the Traditional Custodians of our land. Prior to colonisation, hundreds of Indigenous languages were spoken, imparting millennia-old knowledges relating to connection to land and water, kinship and creation.

Today, many of these languages are now endangered.

In response, Monash IT has partnered with Indigenous communities across Australia to create an interactive, engaging tool that preserves and celebrates their languages and cultures: the Monash Country Lines Archive (MCLA).

Monash is committed to upholding traditional knowledge and respecting Indigenous students, staff and communities. Led by Indigenous Elders and community language speakers, Monash helped develop cutting-edge 3D animations voiced by a person from the depicted nation in their language. These animations have elevated the visibility of Indigenous languages and cultures, promoting conversation between Indigenous and non-Indigenous people across generations.

The MCLA now has a library of videos which allows Elders, emerging leaders and community members to extend their knowledge to others. Their stories have resonated deeply – and garnered growing interest worldwide.
Understanding dementia

Over 400,000 Australians are currently living with dementia in Australia – and this number is expected to rise.

Partnering with Dementia Australia, SensiLab (our purpose-built facility at the Monash Caulfield campus) has designed an interactive app that illustrates the brain and its functions.

The app lets people explore the different regions of the brain, highlighting which areas are affected by dementia. It also communicates the common symptoms and how the disease can impact everyday life.

By forming a deeper understanding of dementia, this research initiative is supporting affected people and their carers.

Dementia Australia is already using the app in education and counselling – and giving health professionals access via its online learning hub.

Supporting kids through sign language

Communication is fundamental to healthy relationships. That’s why it is critical for deaf children to be able to communicate with their parents or guardians. For these kids however, sign language is their first step to building literacy.

The Interactive Auslan Coach (MIAC) is a system that helps people learn Australian Sign Language (Auslan) through mainstream gaming technology.

MIAC shows users the correct way to make a sign from several viewpoints. It then uses a Microsoft Kinect sensor to track a learner’s movements and compares this with the right model of the sign.

The system can also give feedback, helping people fix incorrect parts of their signs.

This project is supported by Dr Kirsten Ellis, who has developed educational resources for platforms such as the Nintendo DS lite, iPad and Microsoft Kinect. Dr Ellis contributes to a more inclusive society by teaching people working with deaf and autistic children sign language.

Removing bias in social code

Software influences almost all aspects of modern society. Despite its ubiquity, however, it’s often not embraced.

This isn’t due to a lack of functionality. It’s due to a software’s inability to integrate human values such as privacy, equality and social justice.

Engineering software with processes and practices that ignore human values results in systems that create undesirable financial consequences – and negative social impact.

The Operationalising Values in Software (OVIS) project and lab are led by the Dean of the Faculty of IT Professor Jon Whittle, and a team of world-leading researchers.

These initiatives aim to develop software methodologies, tools and guidelines that allow software engineers and innovators to embed human values into technology.
Addressing food insecurities

Although the UK is a high-income country and one of the world’s most food secure places, the nation is experiencing an increase in food poverty.

This has been identified through the growth in humanitarian aid participation and food banks.

Monash IT is looking at developing a crowd-sourced map of the food insecurity system in the UK.

This will help capture the shared vision of the ‘crowd’ in relation to household food insecurity. It will also paint a richer, more holistic picture of the country’s situation.

By identifying contributing factors and how these collectively push households into food insecurity, we can design effective methods to tackle the issue – such as enhancing food distribution systems and nutrition.

Enhancing disaster prediction and response

Our annual cycle of bushfires, cyclones and floods places Australia in the global top 10 for economic damage caused by natural disasters.

Overall, it costs our country AUD$37 billion (US$27 billion).

Monash IT aims to develop time series technologies to draw maximum value from Earth Observation programs and data. This will be achieved by analysing a series of satellite images to produce accurate temporal land-cover maps.

The outcomes are expected to benefit many important sectors in Australia, including agriculture, tourism, petroleum, mining, water, property and insurance.
Better recordkeeping for vulnerable children in care

Past children in foster and out-of-home care (Forgotten Australians) need quality recordkeeping systems to provide evidence of abuse, locate their families – and establish their identities.

Unfortunately, many records are either lost or incomplete.

Improving recordkeeping and archival systems for children in care is a priority for the Royal Commission. It aims to help prevent, detect, report, investigate and take action against child abuse.

Dr Joanne Evans and her team are researching and developing the independent Living Archive of the Child. The database will be populated by the children themselves, as well as caregivers, social workers, teachers and health professionals.

This research project will help a number of communities, including displaced refugees, and become a driver of historical justice and reconciliation.

Improving access for the vision impaired

Diagrams, maps and charts are widespread in written communication – and the ability to comprehend, use and create these graphics is often taken for granted.

But for the vision impaired who have trouble accessing this information, their opportunities are severely restricted. Opportunities such as furthering their careers, participating in the workplace and enjoying the media.

Our purpose-built facility SensiLab has worked closely with the vision impairment community to explore areas of greatest need.

The lab has also looked at a combination of 3D printing and low-cost technology to create interactive, accessible objects. These objects include ‘intelligent’ 3D maps embedded with electronics and learning aids that help students move from concrete to abstract representations.

Significant outcomes resulting from this research includes greater engagement in education, interactive tactile maps for Vision Australia and accessible versions of best-loved items from the Bendigo Art Gallery’s permanent collection.
‘Endless opportunities to form new partnerships – and shape the future of IT’
Even though I don’t have a traditional IT background, I had been contributing to emerging technologies research as a sociologist for many years.

But I wanted to go somewhere I could make a real impact. That’s why I joined Monash IT and its new multidisciplinary Emerging Technologies Research Lab.

A partnership between the Faculty of Art, Design & Architecture and Monash IT, the lab allows me to research the ethical and environmental implications of smart and digital technologies in everyday life.

And when I was invited to join our faculty’s Equity and Diversity Committee, I jumped at the opportunity. I’m now better able to help address the important equity and diversity challenges in the IT sector.

During my time here, I’ve found the culture to be incredibly dynamic and welcoming. Every person I talk to about my research is supportive and excited about it. My manager is also flexible to my personal needs and work-life balance.

Even though I don’t have a traditional IT background, I had been contributing to emerging technologies research as a sociologist for many years.

YOLANDE STRENGERS
Associate Professor, Emerging Technologies Research Lab

‘Monash invests deeply in our faculty’s mission, IT for Social Good. Thanks to this strong commitment across the University, I have endless opportunities to form new partnerships – and shape the future of IT.’
A WORKPLACE TO EMBRACE

A plethora of wellness programs, ongoing professional development, relocation services and more. We believe in creating a workplace that supports you from all angles.
A FAMILY-FRIENDLY WORKPLACE

Whether you’re expecting a little one or a new parent, our policies and programs are here to make your transition as smooth as possible. After all, a healthy ‘work-life balance’ is more than a platitude for us. It’s one of our key drivers – and a recognised necessity for gender equality in the workplace.

• Generous parental leave for new fathers and mothers
• On-campus childcare (with the option to deduct payments from pre-tax salary)
• Flexible working arrangements
• Breastfeeding facilities
• Dual hire (spousal) support
• Returning from parental leave assistance
• Workshops and sessions for parents and carers

CAREER AND PROFESSIONAL DEVELOPMENT

At Monash, we’re not just dedicated to finding the right people. We’re dedicated to investing in them too. That’s why we encourage you to grow personally and professionally through a range of formal and informal initiatives.

• In-house and external staff development opportunities
• Workload relief (assistance with teaching) to attend development and industry events
• Support with meeting caring responsibilities to attend industry events
• Outside Studies Program (sabbatical)
• Individual career and development planning
• Staff undergraduate and postgraduate scholarships
• Informal and formal mentoring
SALARY PACKAGING, BENEFITS AND REWARDS

As a Monash employee, you’ll have a range of financial and non-financial rewards.

- Novated (car) leases
- Discounts for rental cars
- Airline membership (Qantas and Virgin)
- Laptops and smart devices
- On-campus parking for eligible staff
- Superannuation (up to 17%) with an on-campus consultant available
- Recognition of Prior Service with another Australian university or Commonwealth authority
- Relocation assistance for eligible staff members

HEALTH AND WELLBEING

In 2016, Monash was crowned the healthiest workplace in the world. That’s because we have a range of programs, policies and procedures that support the wellbeing of our people – every single day.

- On-campus staff counselling service
- Independent and confidential Employee Assistance Program
- Fitness Centre (with group classes)
- Free flu vaccinations
- Staff Wellbeing and Activity Program
- Dedicated team to support staff with work, health and safety matters
- Staff Volunteer Policy (two paid days leave a year for community volunteering)
- Behaviours in the Workplace policy
- Zero tolerance of violence against women – in and out of the workplace
RELOCATION SERVICES (FOR ELIGIBLE STAFF)

If you’re moving to Melbourne to join Monash, we have a dedicated in-house team to help with all your immigration needs.

In certain cases we also offer a selection of relocation services and subsidies, some of which are below.

- Visa sponsorship
- Economy airfares to Melbourne for you and your immediate family
- Shipping your personal belongings
- Temporary accommodation on arrival
- Home and school searches
- Settling-in services

CAMPUS SERVICES AND FACILITIES

You will be spending a lot of time on campus. So it’s good to know you have all the necessities at hand – as well as a range of other convenient services and amenities in easy reach.

- Cafés, restaurants, banks and ATMs
- Pharmacies, a newsagency and a post office
- Five university libraries
- Car share services
- Electronic car charging parking spaces
- On-campus GPs
- Campus Bicycle Fleet (with a network of walking and bike paths)
- Easy, accessible public transport
- A microgrid to help reduce our carbon footprint
- Highly sought-after entertainment precincts
- Beautifully-maintained gardens
Monash University is Australia’s largest university – and a member of the prestigious Group of Eight. We are also consistently ranked in the world’s top 100 universities.

**TOP 100**

Monash ranks in the top 100 universities worldwide.

Times Higher Education World University Rankings (2018-2019)

**MOST INNOVATIVE**

Australia’s most innovative university 2017, 2018 and 2019.

Reuters Top 75: Asia’s Most Innovative Universities
In the 50+ years since our founding, Monash has built a reputation for high-impact research, quality teaching and an inspiring, inclusive culture.

Everyone who studies and works here is driven by a sense of purpose, a global outlook, and the skills and confidence to make a positive change – to their own lives and the lives of others.

With four campuses in Australia, and a presence in Malaysia, China, India and Italy, our people are also part of a thriving, global community.

At Monash, we’re redefining what it means to be a university. We transcend disciplines and boundaries, going beyond education and research to resolve the world’s most complex challenges. And we know that our deep, robust partnerships with industry, government and the community are key to achieving our ambitious goals.

**AT THE FOREFRONT OF RESEARCH**

At Monash, every research project we undertake is underpinned by one key driver: our desire to make a difference. We believe that great research, when applied properly, can create a lasting, positive change in the world.

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**5,236**

Monash had 5,236 higher degree by research students in 2019.

Enrolment figures are based on full year data as reported to the DoET.

**56%**

Females represent 56% of our academic and professional workforce.

Represents full-time equivalent (FTE) and includes DoET non-reportable staff employed in independent operations in 2019. Also excludes offshore staff in Malaysia and South Africa.

**$462.1M**

We generated $462.1M in total research income in 2019.
ABOUT MONASH UNIVERSITY

RESEARCH ACROSS FACULTIES

Every faculty across the university is committed to producing ground-breaking research that has the potential to transform lives. Embedding a collaborative, interdisciplinary approach in all we do, so much more is possible at Monash University.

Art, Design & Architecture

Our Art, Design & Architecture faculty provides a lively environment for innovative and collaborative research projects – from improving health outcomes with better design to creating more liveable, sustainable cities.

Arts

Research within the Arts faculty addresses important local and global issues to advance our understanding of the world. Its research team aims for excellence in innovative, creative and scholarly research.
**Business and Economics**
The Monash Business School has the expertise, influence and enterprise mindset to address the most complex issues in global business, health and sustainability – and positively impact our changing world.

**Education**
The Education faculty engages in research that is original, rigorous and impartial. The team’s vision is for research to inform professional practice, public debate, policy and community action.

**Engineering**
Our pioneering engineering researchers are developing strategies and technologies to overcome key challenges today – so we can all enjoy a more sustainable and prosperous tomorrow.

**Law**
Monash Law produces research which seeks to influence law reform, engage with the world and improve lives. Its research attracts grants and funding from a variety of sources.

**Medicine, Nursing and Health Sciences**
As our largest research faculty, Monash Medicine, Nursing and Health Sciences goes beyond basic science. With a focus on translational research, the Faculty aims to convert frontier scientific discoveries into measurable human health benefits.

**Pharmacy and Pharmaceutical Sciences**
Fostering excellence in translational drug discovery, development and delivery, research within this faculty aims to help prevent, treat and cure disease.

**Science**
The Faculty of Science seeks to achieve a deeper understanding of our world. From the development of new materials and technologies to measuring gravitational waves – our science researchers are tackling issues of global significance.
‘We have the resources and power to dream large’
We’re not fragmented across disciplines. Instead of one part claiming to be ‘the real thing’, we’re all collaborating. We learn from and respect each other.

As a dedicated faculty, we have the resources and power to dream large and make our own decisions. We can fund whatever we believe is useful. And if something doesn’t go as planned, it’s no big deal. We expect hurdles.

Our faculty is also highly diverse and family-friendly. I’ve had no issue whatsoever as a woman. During my pregnancy and after maternity leave, I had all the support and resources I needed – including childcare and flexible hours. I was never treated second best.

I’ve always had strong women role models. So as Monash’s Head of School of IT and Deputy Dean of the Faculty of IT, I was delighted to be a role model to other aspiring women in our field.

‘At Monash, the discipline of IT has its own faculty – the only one of its kind in Australia. This may seem a gimmick, but it’s crucial.’

MARIA GARCIA DE LA BANDA
Professor, Data Science and AI

We’re not fragmented across disciplines. Instead of one part claiming to be ‘the real thing’, we’re all collaborating. We learn from and respect each other.

As a dedicated faculty, we have the resources and power to dream large and make our own decisions. We can fund whatever we believe is useful. And if something doesn’t go as planned, it’s no big deal. We expect hurdles.

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WELCOME TO LIFE DOWNUNDER

Australia is thriving and beautiful – with many urban and cosmopolitan cities. Our landscapes range from pristine sandy beaches to perfect snowy mountains.
Home to more than four million people, Melbourne is the bustling capital of Victoria. Amazingly, 45% of Melburnians were either born overseas or have a parent who was born overseas.

Walking the streets, you’ll hear more than 150 languages. This diversity has brought many ethnic cuisines and festivals – and a culture of equality, respect and freedom.

Melbourne is known for its wide-open spaces, clean environment, vibrant parklands, temperate climate and casual lifestyle. Our city also offers an abundance of theatres, events, galleries, exhibitions and performances.

Our city really does have something for everyone.

SPORT
Melbourne’s sporting life is second to none.

We host many international events – including the Australian Open (tennis), Formula 1 Australian Grand Prix (car racing), Boxing Day Test (cricket) and Spring Racing Carnival (horse racing).

Winter is Australian Football League season. So get ready to join thousands of passionate Melburnians as they flock to their much-loved ‘footy’ games!

CAFÉS AND RESTAURANTS
Melbourne is a foodie’s paradise!

From internationally renowned restaurants to tiny eateries in city laneways, dining out in Melbourne is a true adventure.

You’ll enjoy an endless variety of cuisines all year round. But whatever you do, don’t miss the International Food and Wine Festival every March – a formal celebration of Melbourne’s culinary culture.

TRANSPORT
Getting around Melbourne is easy – with its wide range of public transport options.

Explore the city on one of Melbourne’s iconic trams, or venture further with our metro and regional trains. It’s all safe, simple and efficient.

You can also join the thousands of active, sustainable residents who commute by bike.

WEATHER
Melbourne enjoys a true seasonal climate with sunny summers, mild autumns, crisp winters and warm springs.

We enjoy average temperatures of 14–25.3°C in our warmer months and 6.5–14.2°C on our coolest days.

The city comes to life from October to April, as daylight savings kicks in. You’ll find Melburnians unwinding at bars, beaches and restaurants until late in the evening.
‘I’m incredibly thankful to Monash for encouraging me to continue pushing boundaries’
Our team shares a vision: to prepare for the future and change the world.

As lead of the Cybersecurity team and Director of the Blockchain Research Lab at Monash, my role is to help move the tech world closer to securing privacy, data integrity and security in the blockchain.

I received my PhD in Hong Kong in 2004. And before joining Monash in 2015, I worked as a research scientist in Singapore for seven years.

Now, I feel proud to be at the home of big ideas in IT in Australia.

Working with a team of more than 100 academics across specialisations such as Software Engineering, AI and Data Science is extremely rewarding. While we collaborate within our faculty, we also work across departments to provide IT knowledge to other sectors.

I’m incredibly thankful to Monash for encouraging me to continue pushing boundaries and flourish as a leader in my discipline.

A career highlight so far has been my close involvement with the Blockchain Research Lab. This is a joint venture with CollinStar Capital and Hong Kong Polytechnic University to develop a new cryptocurrency. It’s a fine example of how Monash provides strong connections with industry that go beyond education and research.

‘It was a great honour to have been named the Australian Computer Society (ACS) ICT ‘Researcher of the Year’ at the 2018 Digital Disruptor Awards. This recognised my work in advancing blockchain technology as a legitimate way to create new economic and social systems.’

JOSEPH LIU
Associate Professor, Cybersecurity and Blockchain Research

'It was a great honour to have been named the Australian Computer Society (ACS) ICT ‘Researcher of the Year’ at the 2018 Digital Disruptor Awards. This recognised my work in advancing blockchain technology as a legitimate way to create new economic and social systems.'
AN INCLUSIVE APPROACH TO RECRUITMENT

When you apply to join Monash IT, you can expect an inclusive and transparent selection and appointment process.
**HOW TO APPLY**

To get started, head to monash.edu/jobs to view available positions. If you find a role that’s right for you, click ‘Apply’, complete the online form and attach the following as separate files:

- Your resume
- Cover letter
- A response addressing the position selection criteria

If you need the criteria for your chosen role, contact the person listed in the advertisement’s enquiries section.

**THE SELECTION PROCESS**

Our dedicated faculty recruitment team will keep you informed throughout the selection and appointment process.

If your written application is successful, we will contact you to organise a video conference with our diverse selection panel. This is your opportunity to share the specific strengths and capabilities you’ll bring to the position – and our faculty.

The next step in the recruitment process will be a face-to-face meeting at Monash. To help you get the most out of this experience, you will attend meetings and events that will give you a deeper understanding of our faculty, campus, work and research groups. Your itinerary will also likely include:

- An interview with the selection committee
- A seminar with our academic cohort
- One-on-one meetings with specialists in your field

From there, Monash IT may present you with an offer of employment for your consideration.

**NEGOTIATING YOUR OFFER**

At Monash IT, we know that everyone is different – and we embrace it. That’s why we invite you to shape your offer to suit your needs.

To begin, reflect on what’s most important to you. You can also speak to people in your network or mentors to identify what is common in your field. You might wish to discuss:

- Dual career hiring and other family support
- Your salary
- Start-up funding packages
- Research teams
- Professional development and discretionary funding
- Relocation expenses
‘The culture among graduate research students here is supportive, collaborative and fun.’
I’ve always been interested in the intersection of technology and how it can be embedded in everyday life, and particularly how it can be used to improve our quality of life through increased accessibility.

Joining the faculty has allowed me to undertake my research and receive mentorship with world-leading researchers within this space.

Sitting in the faculty is the Department of Human-Centred Computing and the Inclusive Technologies group – the largest in Australia focusing on accessibility and HCI.

My work explores the creation of interactive 3D-printed models and how they can be used to increase the accessibility of information for people who are blind or low-vision. Traditionally, tactile raised line diagrams have been used to access graphics, but these can’t convey height or depth.

I uncover how 3D-printed models can be augmented with low-cost electronics to create more engaging accessible graphics that can be interacted with using multiple modalities. One aspect I’m exploring is the integration of conversational interfaces like Siri and Alexa, where an end-user can interact with a model using touch or voice, to which the model and its agent could respond also using voice, sounds or haptic feedback.

The purpose-built spaces and labs here at Monash are cutting edge, giving me access to specialist fabrication equipment integral to my work.

‘My time at Monash has been beyond rewarding. It’s exciting that around every corner there is an opportunity to chat and collaborate with some of the world’s brightest minds.’

SAM REINDERS
PhD candidate
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