Industry Research Opportunity – Summary

Project Title:

Regime-Aware Volatility Strategy – Quantitative Research Engineer

Overview:

This project offers a unique opportunity to design and implement a regime-aware volatility trading system. The student will contribute to building a proprietary options-research engine used in real-money trading, applying advanced quantitative techniques in a real-world environment.

Target Students:

HDR candidates, research assistants, or high-performing capstone/advanced coursework students in: Data Science, Computer Science, Quantitative Finance, Applied Mathematics, Engineering, ML/AI.

Key Skills & Learning Outcomes:

- Market & options data ingestion
- Volatility-surface analytics (IV, RV, skew, curvature)
- Options-pricing modelling
- Trend-state classification and regime modelling
- Back-testing frameworks and risk-controlled trade construction
- Automation pathways (semi-automated → fully automated modules)

Academic Fit:

Ideal for HDR theses or advanced coursework projects in stochastic modelling, financial engineering, ML-driven signal classification, time-series analysis, algorithmic system design, and applied mathematics.

Project Details:

- Duration: Approx. 3–6 months (10–15 hrs/week)
- Mode: Remote-friendly work environment
- Start Date: Flexible (early 2026 preferred)
- Supervision: Industry supervision provided; university supervision can be integrated

- IP: All IP belongs to employer; academic credit for non-proprietary components

Note: While the role is remote-friendly, some work will need to be undertaken during U.S. market hours when analysing live options chains and market conditions

Application Process:

- Required Documents: CV, academic transcript, brief statement of interest
- Contact: Simon Brinsmead (email & phone to be provided)
- Deadline: To be confirmed

Continuation Opportunities:

Exceptional students may be invited to continue part-time in an extended applied-research capacity, support long-term system automation, and participate in proprietary strategy evolution.