Jad **Chamseddine**

FINAL-YEAR DUAL DEGREE STUDENT IN MATHEMATICS & COMPUTER SCIENCE

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Education

Sorbonne Université (ex UPMC)   *Paris, France*
DUAL BACHELOR'S DEGREE IN MATHEMATICS AND COMPUTER SCIENCE   *2023 – Expected 2026*

- Coursework: Measure Theory & Probability, Algorithms, Data Structures, Linear Algebra, Database Systems, Numerical Analysis.

Lycée Buffon   *Paris, France*
CLASSES PRÉPARATOIRES (MPSI) – INTENSIVE MATHEMATICS & PHYSICS (30+ H/WEEK)   *2022 – 2023*

Lycée Blomet   *Paris, France*
FRENCH BACCALAUREATE, SCIENTIFIC TRACK – GRADUATED WITH HIGH HONOURS   *June 2022*

- Specialisation: Mathematics & Physics

Research & Projects

LIP6 Laboratory (Laboratoire d'Informatique de Paris 6), Sorbonne Université   *Paris, France*
RESEARCH INTERN – PROBABILISTIC GRAPHICAL MODELS   *Feb. 2025 – June 2025*

- Designed a T-order Dynamic Bayesian Network (DBN) using Python and pyAgrum.
- Developed custom inference algorithms for complex temporal dependencies.
- Optimized performance to mitigate combinatorial explosion in high-dimensional models.
- Applied measure theory and probability to validate model consistency.

Personal Project – NLP & Quantitative Finance
GPU-ACCELERATED FINBERT FINE-TUNING   *Jan. 2025 – Present*

- Fine-tuned FinBERT on the Financial PhraseBank dataset (100% annotator agreement) for financial sentiment classification.
- Optimized training pipeline for local GPU execution on an NVIDIA RTX 3060 (fp16 mixed precision, gradient accumulation).
- Delivered 3-class sentiment classification (Positive / Negative / Neutral) using the HuggingFace Transformers stack.

Data Structures course project, Sorbonne Université   *Paris, France*
CPU ARCHITECTURE SIMULATOR   *March 2025 – June 2025*

- Designed and implemented a functional CPU simulator modeling the fetch-decode-execute cycle and instruction set architecture.
- Developed low-level memory management and register simulation to ensure binary compatibility with custom assembly.
- Optimized execution logic in C to handle complex instruction flows and pipeline states.

Personal Portfolio Management

Active Equity Portfolio Management
ANALYSE ET MISE EN ŒUVRE DES CHOIX D'INVESTISSEMENT   *2024 – Present*

- Built a long-only thematic strategy focused on the Semiconductor & AI value chain.
- Conducted in-depth financial analysis on individual stocks (e.g., Advantest analysis leading to +100% realized return).
- Managed entry/exit on large-cap assets (NVDA, TSM) based on supply chain monitoring.
- Applied dual CS/Math background to evaluate GPU architectures and semiconductor manufacturing processes.

Skills

- **Programming:** Python (Pandas, NumPy, Matplotlib), C, SQL, Java
- **Tools:** Git/GitHub, Jupyter Notebooks, LaTeX
- **Languages:** French (Native), English (TOEFL 90/120 – B2), Spanish (Intermediate)

Interests & Activities

- **Market Analysis:** Macro trends & Financial press (Bloomberg, FT)
- **Technology:** GPU computing (Graphics Processing Unit)
- **Chess:** Top 2.3% on Chess.com
- **Horology:** Watch enthusiast – innovation, craftsmanship & complications (Deadbeat Seconds)