

Arnold BASKAR

Saguenay, QC, Canada (Willing to relocate internationally)
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EDUCATION

Université du Québec à Chicoutimi (UQAC) <i>Master of Science in Computer Science - Artificial Intelligence (Double Degree)</i>	<i>Saguenay, QC, Canada</i> 2025 – 2027
Télécom Saint-Étienne (Institut Mines-Télécom) <i>Master of Engineering (Diplôme d'Ingénieur) in Computer Science & Networks</i>	<i>Saint-Étienne, France</i> 2023 – 2027
Intensive Preparatory Classes for Grandes Écoles (MPSI / PSI) <i>Lycées Fénélon & Claude Bernard</i>	<i>Paris, France</i> 2021 – 2023
Intensive coursework in Advanced Mathematics (Calculus, Linear Algebra, Probability), Physics, and Engineering Sciences.	
Lycée Henri-IV <i>High School Diploma with Honors in Science (Baccalauréat Scientifique)</i>	<i>Paris, France</i> 2019 – 2021
Admitted based on outstanding academic excellence.	

QUANTITATIVE FINANCE & SELF-STUDY

- Financial Mathematics:** Self-taught through independent study of Master's level academic materials (Financial Engineering) and *Options, Futures, and Other Derivatives* (J. Hull). Focus on the Black-Scholes model, stochastic calculus, and derivatives pricing.

TECHNICAL SKILLS

- Languages:** C/C++ (Low Latency), Python, SQL, Java, Kotlin.
- Machine Learning & AI:** PyTorch, LibTorch, TensorFlow, Keras, Scikit-learn, Pandas, NumPy, NLP (Sentence-BERT).
- Tools & DevOps:** Git, Docker, Linux, CI/CD.

PROJECTS IN FINANCE & ARTIFICIAL INTELLIGENCE

Generative Market AI System (Deep Learning & Low-Latency C++)	<i>March 2026 – Present</i>
- Engineered an ML pipeline (GAF, CNN, VAE) to detect market anomalies and generate synthetic RL data. - Exported the models to a C++ environment using LibTorch, achieving an optimized inference latency of ~ 46 ms.	
Low Latency Deep Learning Inference Engine (C++)	<i>March 2026 – Present</i>
- Designed and developed a C++ inference engine <i>from scratch</i>, optimized for ultra-low latency (inference time of $\sim 12 \mu\text{s}$). - Applied the engine to financial derivatives <i>pricing</i> with highly optimized memory management.	
Multimodal Algorithmic Trading System (Personal Project)	<i>February 2026 – Present</i>
- Developed a Python-based trading algorithm combining technical and fundamental analysis (NLP). - Integrated neural networks for real-time sentiment analysis on financial news feeds and Twitter/X.	
Automated Trading Agent (Reinforcement Learning)	<i>December 2025</i>
Implemented and evaluated a Deep Q-Network (DQN) agent combined with a supervised model for trading optimization. Backtested strategies on real-world time series data (AAPL) via Yahoo Finance.	

PROFESSIONAL EXPERIENCE

Inspire Junior Enterprise <i>Full-Stack Developer (Next.js / Tailwind) & Mobile Developer (Kotlin)</i>	<i>Saint-Étienne, France</i> May 2025 – February 2026
Successfully delivered two consecutive client mandates: developed a mobile application, followed by a full website.	
ReachFive / Télécom Saint-Étienne <i>Project Manager (Applied AI & Cybersecurity Research)</i>	<i>Saint-Étienne, France</i> March 2025 – June 2025
Leveraged Generative AI (LLMs) and unstructured data processing for real-time cyberattack detection.	
RCS France SAS (Thales Group, acquired by Hitachi Rail) <i>Data & AI Intern (Supply Chain & Procurement)</i>	<i>Plessis-Pâté, France</i> May 2024 – June 2024
Conducted a feasibility study for deploying Artificial Intelligence within the Supply Chain & Procurement department.	

MISCELLANEOUS

- Trading:** Desjardins Stock Market Simulation (Event-driven trading in accelerated time). **Ranked 3rd/136** (award winner) and **5th/81**.
- Certifications:** NVIDIA Fundamentals of Deep Learning, Innov'IT Diploma.
- Entrepreneurship:** Start'In Challenge 2025 (Investor pitch for a decentralized local AI project).
- Languages:** French (Native), English (Professional working proficiency).
- Interests:** Piano (Self-taught, regular practice).