Abrar Ahmed

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LinkedIn: Abrar Ahmed |**GitHub:** Abrar Ahmed |**HackerRank:** Abrar Ahmed |**Website:** Abrar Ahmed

EDUCATION

MSc Financial Engineering | WorldQuant University Jan 2025 – Jan 2027

Coursework: Financial Markets, Financial Data & Econometrics, Derivative Pricing & Stochastic Modeling, Machine Learning & Deep Learning in Finance, Portfolio & Risk Management

BSc Computer Science | Eötvös Loránd University Sep 2021 – Jan 2025

Coursework Data Structures and Algorithms, Machine Learning, Data Science & Statistical Analysis, Artificial Intelligence, Big Data Technologies, Databases & Data Warehousing, Cloud Computing, Data Visualization.

EXPERIENCE

Eötvös Loránd University

Teaching Assistant Feb 2025 – May 2025

- Supported students in Python, Operating Systems, and Algorithms & Data Structures, helping with concepts and debugging.
- Conducted tutorials, reviewed assignments, facilitated discussions, and consistently assisted instructors with course delivery.

Ericsson

Software Developer Aug 2023 – Oct 2024

- Developed data-driven applications using Python, focusing on predictive analytics and automation.
- Built and optimized data pipelines using Apache Spark and Pandas to process large-scale datasets.
- Applied machine learning models for anomaly detection and performance optimization.
- Conducted exploratory data analysis (EDA) and feature engineering to improve model accuracy.
- Automated data processing workflows with Python and Apache Airflow for efficiency.
- Created interactive dashboards and visualizations using Matplotlib, Seaborn, and Plotly for insights.
- Collaborated with cross-functional teams to integrate data solutions into software applications.

PROJECTS

Flowlet | Tools: Python, Flask, React, PostgreSQL, Kubernetes, Terraform

- Cloud-agnostic, microservices-based embedded finance platform supporting digital wallets, payment processing, and card issuance.
- Built KYC/AML compliance, ledger management, and AI-driven fraud detection pipelines for real-time risk scoring.

NexaFi | Tools: Python (FastAPI), Node.js (NestJS), Go, React, PostgreSQL, Kafka, Kubernetes, Terraform

- AI-powered financial OS for SMBs unifying accounting, payments, and advisory in an event-driven microservices architecture.
- Integrated advanced ML workflows and distributed-ledger modules for seamless data integrity and automated decisioning.

QuantumAlpha | Tools: Python, C++, PyTorch, TensorFlow, Apache Kafka, Docker, Kubernetes, React, TypeScript

- AI-driven hedge-fund engine leveraging machine and reinforcement learning on multi-source market data for strategy backtesting.
- Orchestrated real-time trade execution and risk management services behind a scalable microservices dashboard.

RiskOptimizer | Tools: Python, Rust, FastAPI, React, TypeScript, PostgreSQL, TensorFlow, Kubernetes

- AI-powered portfolio risk management dashboard featuring VaR, stress testing, volatility forecasting, and optimization engines.
- Integrated blockchain-backed transparency with smart contracts for immutable audit trails and real-time risk alerts.

CERTIFICATIONS

- Applied AI – WorldQuant University May 31, 2025
- Applied Data Science – WorldQuant University March 22, 2025
- Foundations of Financial Engineering - WorldQuant University May 06, 2025

SKILLS

Programming Languages: Java, Python, JavaScript, TypeScript **Agile Methodologies:** Jira, Confluence

Frameworks: Spring Boot 3, JUnit 5, Mockito, Angular **Databases:** Oracle, MySQL, PostgreSQL

DevOps & Cloud Infrastructure: AWS, GCP, IBM Cloud, Terraform, Ansible, Docker, Kubernetes, OpenShift, Grafana, Prometheus

CI/CD Pipelines: Jenkins, GitHub Actions, Spinnaker **Scripting & Automation:** Python, Bash, Shell Scripting, Automation Tools

Testing: Unit Testing, Integration Testing, Test-Driven Development **API Testing:** Postman **Version Control:** Git, GitHub, Gerrit

Finance & Quantitative Skills: Expertise in financial markets, data analysis, and econometrics; Derivative Pricing & Stochastic Modeling: Proficient in stochastic calculus, Monte Carlo simulations, and machine learning applications in finance.