Aleksej Zabijakin

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Technical Skills

Languages: Java, Python, Typescript, Next.js, C#, Javascript
Technologies/Frameworks: Spring Boot, Docker, Oracle SQL, MongoDB, Kafka, Kubernetes, Gradle, Jenkins, Git, Junit

Experience

Citigroup   **Jul. 2023 – Present**
Software Engineer – Fixed Income eTrading
- Architected and implemented a mission-critical golden source reference data system using Java Spring Boot and MongoDB, processing real-time Fixed Income trading data serving 15+ downstream systems with 99.99% availability
- Engineered and deployed an end-to-end test automation framework leveraging Cucumber/Gherkin BDD methodology, achieving 65% increased test coverage through seamless CI/CD pipeline integration
- Modernized legacy Support UI from Angular 5 to 16, implementing modern state management and component architecture, resulting in 50% faster development velocity
- Resolved critical trading data discrepancies by collaborating with support, utilizing debugging and log analysis to identify root causes and implement lasting solutions

Citigroup   **May 2022 – Aug. 2022**
Software Engineer Intern – Global Spread Product Syndication
- Implemented a new CI/CD pipeline, achieving a 40% reduction in build times, leading to faster development cycles and deployments
- Created an Oracle SQL database for application property injection at startup, streamlining deployments and saving over 1 hour per change
- Demonstrated experience with agile methodologies, effectively adapting to changing requirements within a fast-paced development environment

Ted Rogers School of Management - Cybersecurity Research Lab   **Sept. 2021 – Apr. 2022**
Research Assistant - Mosaique
- Utilized blockchain technology to develop a decentralized governance workflow platform to enable trust, transparency and accountability
- Leveraged open-source technologies such as Cytoscape to design an intuitive user interface, enabling simplified governance model development without the need for chain code redeployment
- Conducted literature reviews on decentralized governance models, contributing insights that informed platform development and strategic direction

Education

Georgia Institute of Technology   **Sep. 2025 – Sep. 2027**
Masters of Science in Computer Science

Toronto Metropolitan University   **Sep. 2019 – Apr. 2023**
Bachelor of Science (Honours) in Computer Science — GPA: 3.82 / 4.0

Teaching Assistant — Intro to Programming, Data Structures and Algorithms
- Demonstrated exceptional time management by successfully balancing the demands of a full-time student and teaching assistant
- Efficiently managed administrative tasks, including grading assignments, tracking student progress, and organizing office hours, ensuring timely completion of responsibilities
- Implemented hands-on exercises, in lab projects, and interactive demonstrations, to enhance student engagement and learning outcomes

Projects

DeepTrade: Predicting the Future of Stocks | *Python, SkLearn, NumPy*
- Developed a Long Short-term Neural Network (LSTM) to predict the next day opening price of any publicly traded company on the NYSE and NASDAQ
- Automatically sourced real time data from the Yahoo Finance API to ensure data quality

PintPredictor: Data-Driven Beer Style Discovery | *Python, SkLearn, Pandas*
- Constructed an unsupervised machine learning model capable of classifying beer styles, showcasing proficiency in data analysis and machine learning
- Utilized the KNN algorithm to identify similarities between various beer types, validating results through the elbow method