# 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

- Utilized Java Spring Boot and MongoDB to develop a robust reference data system used globally for Fixed Income eTrading
- Upgraded a Support UI from Angular 5 to 16, enabling faster developer onboarding and a 50% improvement in development velocity
- Resolved critical trading data discrepancies by collaborating with support, utilizing debugging and log analysis to identify root causes and implement lasting solutions
- Addressed scalability and availability challenges by migrating a monolithic reference data system to a microservices-based solution

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