Dmitriy Prokopchuk

dimprokopchuk@gmail.com | Linkedin | Github | Portfolio

Education

University of Toronto Sep 2021 – Jun 2025
Honours BSc Computer Science Co-op | **4.0/4.0 GPA** | Dean's List 2021-2024 Toronto, ON

- Lester B. Pearson Scholarship - Full-ride | **$350,000+**
- 2023 STAB57 Professor Nominee - Outstanding achievement in STAB57: Introduction to Statistics
- 2022 UofT Excellence Award - Summer Research Fellowship | **$7,500**
- 2022 UofT Scholar In-Course Award - Top 20 students entering second year | **$1,500**

Experience

Software Engineer Intern May 2024 – Aug 2024
eBay Toronto, ON

- Led the feature development of an error recovery queue for cache updates, ensuring data recovery and long-term consistency in a production cache serving **3+ billion daily read requests** for item and seller data (**40,000 TPS**).
- Developed **Springboot** and **Spring Batch** services in **Java** and **Kotlin**, utilizing **Kafka** event queues and **NoSQL** database operations to enable the recovery of a **15,000 TPS** event processing system.
- Implemented **Prometheus** and **Grafana** monitoring, adding observability and alerting for critical production systems.
- Authored and presented an **architectural design document** in an architectural design review session, receiving approval for new modules and enhancements to existing high-traffic production systems.

Undergraduate Research Assistant Feb 2023 – Aug 2024
University of Toronto, Computational Social Science Lab Toronto, ON

- Led the back-end systems design and development for a Chess AI platform **API** for providing machine learning analyses using **Python, FastAPI, MongoDB, Nginx, Git, and Docker**.
- Developed critical **RESTful** back-end accounts, data collection, caching, game ingestion, and user statistics systems.
- Optimized **asynchronous** parallel job queues for processing **AI** analyses to improve API endpoint response times by **1000%+**, and refactored existing code to increase server stability and uptime by over **2x**.

Software Developer Co-op May 2023 – Aug 2023
Royal Bank of Canada Toronto, ON

- Created scalable cloud-native **REST API microservices** for payment transaction systems in an **Agile** team using **Java, Springboot, Microsoft Azure, Kafka, Elasticsearch, MS SQL Server, and Git**.
- Added **OAuth2** token parsing and verification to a new API layer, ensuring security for **10,000+** daily B2B transactions.
- Implemented feature flags to repoint downstream API calls against maintenance schedules, increasing uptime by **30%**.

Undergraduate Research Assistant Nov 2021 – May 2023
University of Toronto, Ontario Institute for Studies in Education Toronto, ON

- Created **25+** web-scrapers using **Python, BeautifulSoup4, and Selenium** to aggregate a worldwide university metrics database, resulting in a UTEA research award valued at **$7,500**.

Software Engineer Co-op Sep 2022 – Dec 2022
PointClickCare Mississauga, ON

- Developed and unit-tested authentication, authorization, and DB back-end systems for **4** data processing cloud ETL pipeline **REST APIs** using **Java, Springboot, OAuth2, Kafka, and MS SQL Server** in an **Agile** environment.
- Integrated microservices with **Jenkins** CI/CD and multiple **Azure** services using **Helm Charts and Terraform** scripts.

Projects

Distributed Cloud Compute Framework | *Java, Kubernetes, Docker, PostgreSQL, Kafka, Springboot* | GitHub

- Created a **scalable** distributed computing framework tailored for the cloud.
- Implemented processing for custom **Docker**-based jobs with **Springboot**, and asynchronous job-queues with **Kafka**.
- Enabled horizontal scalability with **Kubernetes**, with real-time job tracking over a **PostgreSQL** Database.

Full-Stack Music Visualizer | *Java, Springboot, ReactJS, p5.js, Docker, Azure, Netlify* | GitHub

- Developed a web-based music player that visualizes the audio frequency spectrum using **ReactJS and p5.js**.
- Implemented a **Java Springboot REST API** for storing music, hosted using **Docker** and **Microsoft Azure**.

Clubs & Volunteering

Vice Lead Partnerships Feb 2024 – Present
Google Developer Student Clubs Toronto, ON

- Organized the first iteration of the GenAI Genesis Hackathon for **250+** participants, in coordination with **6+** industry sponsors, **30** judges, and **15** mentors.

Technical Skills

Languages & DBs: Java, Python, Kotlin, MS SQL Server, PostgreSQL, MongoDB, Elasticsearch, JavaScript, HTML, CSS
Frameworks: Springboot, Azure, FastAPI, ReactJS, Flask, Firebase, Selenium, Agile
Tools: Docker, Kubernetes, Kafka, Jenkins, Jira, Git, Prometheus, Grafana, Nginx, Terraform, Maven, OAuth2