Dmitriy Prokopchuk

📞 437-984-8517 ✉ dimprokopchuk@gmail.com in Linkedin ⦿ Github 🌐 Portfolio

Passionate 3rd year CS student with a background in Back End, Cloud, API, and Microservice development. Seeking a final 4-month internship in Back End and Cloud development to create scalable, performant, and reliable solutions.

Education

University of Toronto — Sep 2021 – Jun 2025
Honours BSc Computer Science Co-op | **4.0/4.0 GPA** | Dean's List 2021-2023 — Toronto, ON
- Lester B. Pearson Scholarship - Full-ride | **$350 000+**
- 2022 UofT Excellence Award - Summer Research Fellowship | **$7500**
- 2022 UofT Scholar In-Course Award - Top 20 students entering second year | **$1500**

Courses: Design & Analysis of Data Structures, Software Design, Intro to Databases & Web Applications

Experience

Undergraduate Research Assistant — Feb 2023 – Present
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, 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 and highly available new **REST API microservices** for payment transaction systems in an **Agile** team using **Java, Springboot, Microsoft Azure, Kafka, and Elasticsearch**.
- Resolved deployment issues for **containerized** services on **Azure-hosted Kubernetes** clusters, reducing high and critical security vulnerabilities by **100%** and increasing availability.
- Implemented database-linked feature flags to repoint internal API calls in line with other teams' API downtime using **MS SQL Server and Togglz**, 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 $7500.
- Engineered data discrepancy flagging systems for **CSV and SQL** DBs, allowing for streamlined research analysis.

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 ETL pipeline **REST APIs** using **Java, Springboot, OAuth2, Kafka, and MS SQL Server** in an **Agile** environment.
- Enabled the deployment of multiple microservices to a **Jenkins** pipeline and set up integration with multiple **Microsoft 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
- Implemented a **Java and Springboot REST API** for uploading and downloading music over **HTTP** protocols.
- **Containerized** Springboot application and deployed using **Docker, Microsoft Azure, and Netlify**.
- Developed a web-based music player that visualizes the audio frequency spectrum using **ReactJS and p5.js**.

Clubs & Volunteering

Google Developer Student Clubs — Sep 2023 – Present
Director, Partnerships — Toronto, ON
- Helping expand GDSC to University of Toronto's Scarborough Campus for the first time ever.

Technical Skills

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