# **Dmitriy Prokopchuk**

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 system 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 use of **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 data conversion, event production, and search systems for payment transaction REST API
  microservices using Java, Springboot, Microsoft Azure, Kafka, and Elasticsearch under an Agile environment.
- Brought **OAuth2** security, token parsing and verification systems to an entirely new payments API layer, ensuring security for **10000+** daily high-volume B2B transactions.
- 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**

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.is**.
- Implemented a Java and Springboot REST API for uploading and downloading files over HTTP protocols.
- Dockerized Springboot application and deployed using Microsoft Azure and Netlify.

**Android Venue Booker** | *Java, Android Studio, Firebase* | GitHub

- Created a **CRUD Android application** with **Java** for the creation and booking of venues and events.
- Implemented NoSQL data storage, asynchronous data updating, and authentication with the Firebase API.
- Acted as **Scrum Master** for a team of **5** members, using **Jira and Github** for collaboration.

# Clubs & Volunteering

#### Google Developer Student Clubs

Sep 2023 – Present

Director, Partnerships
• Helping expand GDSC to University of Toronto's Scarborough Campus for the first time ever.

Toronto, ON

### **Technical Skills**

Languages & DBs: Java, Python, MS SOL Server, SOLite, MongoDB, Elasticsearch, Bash, C. JavaScript, HTML, CSS

Frameworks: Springboot, Azure, ReactJS, FastAPI, Flask, Firebase, Selenium, Agile

Tools: Docker, Jenkins, Jira, Git (GitHub, Bitbucket), Nginx, Terraform, Mayen, OAuth2