

Martin Kamburov

Software Developer

martinivkamburov@gmail.com

Toronto, Ontario

martinkamburov.com

EDUCATION

Toronto Metropolitan University - Bachelor's of Science Honours, Computer Science

September 2021 - April 2025

Toronto, ON

Relevant courses

- Machine Learning, Database Systems, Data Structures and Algorithms, Computer Networks, Web Development

WORK EXPERIENCE

Exceed Robotics - Programming and AI Instructor

Dec 2021 - current

Toronto, ON

- Built and delivered a computer-vision curriculum by shipping **Python/OpenCV starter libraries** and unit-tested examples; **reduced student setup time by 50%** across multiple classes. *Tech: Python, OpenCV, Raspberry Pi*
- Led the creation of **3 Computer Vision** courses, **boosting student enrollment by 20%**.
- Developed and led **5+ AI-focused final projects**, helping students implement Python-based applications with advanced capabilities, including **object, voice, and image recognition** using **Raspberry Pi** and **Google Cloud**
- Helped multiple students engineer **Python-based mock Google Homes** using **Google Cloud**, achieving real-time data access and user interaction through advanced voice recognition technology.

Royal LePage Signature Realty - Software Developer Intern

September 2024 - April 2025

Toronto, ON

- Developed a **Python** script using **Selenium** to **scrape data** from **10000+ listings**, **reducing data collection time by 90%**.
- Automated** the process of posting listings to Facebook Marketplace **reducing manual input time by 100%**.
- Implemented rotating proxies** to **bypass bot detection mechanisms**, ensuring **uninterrupted** and **scalable** scraping operations.
- Developed a **user-centric web interface** to **streamline listing management**, **improving data entry efficiency** and **minimizing operational bottlenecks**.

PROJECTS

PrivyTune - Spring Boot, React, Typescript, PostgreSQL, AWS, FastAPI

- Built an offline-first WebGPU-powered AI chatbot** that caches quant-sharded INT4 LLMs (e.g., Phi-3-mini) entirely in the browser, enabling real-time LoRA fine-tuning and inference with **zero server-side GPU** and **100% user data privacy**.
- Developed a stateless JWT-secured Spring Boot REST API** with **PostgreSQL-backed** user management, handling authentication/authorization, presigned S3 uploads, and audit endpoints.
- Used FastAPI's backend service** to accept user-submitted datasets and orchestrate LoRA fine-tuning in Python, enabling **on-demand customization of LLMs** through the website.
- Implemented LoRA fine-tuning in PyTorch** to train lightweight LLMs on custom datasets within Python, optimizing memory efficiency and reducing training time while preserving model accuracy.
- Engineered a responsive React + TypeScript front-end** with **Bootstrap** and **Web Workers**: drag-and-drop dataset ingestion, model-selector dropdown auto-populated from the API, and caching that enables instant offline reloads and <2 s cold-start inference on supported GPUs.

NBA Stat Finder - Java Spring Boot, PostgreSQL, React, JavaScript

- Developed a **Spring Boot REST API** that **queries a PostgreSQL database** for player, team, and game statistics, returning search results in **under 200 ms**.
- Designed a clear **PostgreSQL schema** (players, teams, seasons, game logs) and used Spring Data JPA to keep SQL code readable and maintainable.
- Built a **React front-end** featuring an **auto-complete search bar** and responsive stat cards so users can instantly view career, season, and per-game metrics.

TECHNICAL SKILLS

- Programming Languages:** Python, Java, JavaScript, TypeScript, C, HTML, CSS, Bash/Shell, Arduino
- Databases:** PostgreSQL, MongoDB, SQL
- Frameworks and Libraries:** ReactJS, Spring Boot, NodeJS, ExpressJS, NextJS, Pandas, Numpy, Selenium, Pytorch
- DevOps:** AWS, Google Cloud, Git, Docker, CI/CD (GitHub Actions)