

Helena Kosmajac

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Education

Toronto Metropolitan University

Toronto, ON

Bachelor of Science in Computer Science

Sep 2023 – Dec 2027

- Faculty of Science Excellence Award, top 1% secondary-school performance
- Built a web app at Ignition Hacks 2025 with interactive tutorials teaching car functions to hands-on, visual learners

Experience

Controls Engineering Intern

Austin, TX

Tesla

Sep 2025 – Dec 2025

- Developed and tested real-time software in Structured Text and C++ for cathode manufacturing equipment, processing thousands of concurrent sensor events and contributing to a 35% reduction in production defects
- Performed root-cause analysis and performance profiling on production systems, identifying and resolving operational issues
- Built Grafana dashboards combining 50+ live sensor streams, giving engineers a centralized view for real-time issue detection
- Collaborated with cross-functional engineering teams to test, validate, and deploy software improvements in a production environment

Full-Stack Developer & AI Integration

Toronto, ON

Toronto Metropolitan University

May 2026 – Present

- Building NeuralDetect AI, a chatbot that interprets uploaded MRI scans and supports triage for an early-stage healthtech project founded by TMU psychology students
- Owning report generation, data visualization, and 3D rendering on the customer-facing site, translating ambiguous, nontechnical founder requirements into shipped features

Python and Java Instructor

Richmond Hill, ON

WizRobotics

Apr 2025 – Present

- Taught programming fundamentals, object-oriented design, and algorithms to 20+ students
- Built curriculum from scratch emphasizing debugging and hands-on problem solving over theory

AI Coding Evaluator (Freelance)

Remote

DataAnnotation Tech

Apr 2024 – Sep 2024

- Evaluated 500+ AI-generated code completions across Python, React, Java, and C++, maintaining a 95% positive feedback rate

Projects

High-Performance Order Book Simulator [GitHub]

2026

- Designed and implemented a multithreaded C++ order-processing engine from scratch, using object-oriented design and core data structures to match concurrent buy and sell orders
- Developed a benchmark harness and unit-test suite to validate correctness under concurrent load
- Used perf and Valgrind to profile execution, diagnose performance bottlenecks, and iteratively optimize hot paths

Live With Ease: Full-Stack Application [GitHub]

Jan 2025

- Designed and shipped a full-stack application (React, FastAPI, PostgreSQL), owning architecture, implementation, and deployment
- Integrated an LLM API for structured data extraction and implemented scheduled background jobs for recurring workflows
- Designed indexed PostgreSQL queries achieving sub-200ms response times; containerized with Docker and deployed via Vercel and Railway

PlantPal: CLI Application [GitHub]

May 2026

- Built a modular Rust CLI application with persistent local data storage, date-based scheduling logic, and live weather API integration for real-time decision making

Technical Skills

Languages: Python, Java, C++, JavaScript, TypeScript, SQL, Rust, Structured Text, Bash

Frameworks: React, FastAPI

Systems and Data: PostgreSQL, REST APIs, Docker, multithreading, concurrency

Tools and Practices: Git, CI/CD, unit testing, debugging, Agile, Grafana, perf, Valgrind

Deployment: Vercel, Railway