

AMIR HASRATI

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EDUCATION

University of Guelph

Sep 2022 – May 2027

Honours Bachelor of Computing (Computer Science Major), Co-op

Guelph, Ontario

Relevant Courses: Parallel Programming (98%), Theory of Computation (98%), Algorithms (93%), Software Engineering (90%)

TECHNICAL SKILLS

Languages: C, TypeScript, C#, Python, JavaScript, Java, SQL, C++, HTML/CSS

Frameworks/Tools: Next.js, NestJS, React, Node.js, Docker, Git, MCP, Hugging Face, Cloudflare, Vercel, Azure DevOps, CI/CD

Databases/ORMs: MongoDB, MySQL, PostgreSQL, SQLite, Supabase, Drizzle

EXPERIENCE

Software Engineer Intern

Jan 2026 – Aug 2026

Picton Investments

Toronto, Ontario

- Engineered and shipped TypeScript and NestJS MCP servers that transformed core product workflows into standardized AI-callable tools, enabling users to access application functionality conversationally through Claude and other AI clients.
- Partnered with the UX team to design and develop a React and Next.js dashboard and its supporting REST APIs, enabling teams to manage 10+ app instances and product configuration through SQL-backed workflows.

Software Developer Intern

May 2025 – Aug 2025

Descartes Systems Group

Waterloo, Ontario

- Developed core features for a company-wide .NET Core Single Sign-On (SSO) validation application that automatically ensures web applications, APIs, and identity providers (IdPs) follow enterprise security requirements.
- Collaborated with the UX department to design and build UI components and refine user interaction flows, significantly improving developer experience and usability across all teams at the company.

Software Developer Intern

Sep 2024 – Dec 2024

Descartes Systems Group

Waterloo, Ontario

- Engineered and maintained internal UI components, including interactive data visualization modules, enabling other teams to integrate analytics seamlessly into their applications.
- Contributed to a major migration initiative, porting an enterprise application from .NET Framework to .NET Core to modernize infrastructure, extend application lifespan, and improve performance.

Teaching Assistant – Introduction to Programming

Sep 2023 – Dec 2023

University of Guelph

Guelph, Ontario

- Taught C fundamentals to over 200 students; graded assignments and provided individualized feedback.

Freelance Web Designer & Developer

May 2023

Argentium Consulting

Guelph, Ontario

- Designed and developed a responsive Remix and React website with reusable components, improving usability and SEO.

PROJECTS

🔗 Revelio | TypeScript, Hugging Face, OpenAI, Docling, PostgreSQL, PDF.js

Apr 2026 – Present

- Developed an AI-powered research tool that helps users navigate dense technical papers by identifying key concepts and mathematical notation, then explaining them using context from the paper itself.
- Built a document-processing pipeline with PostgreSQL queues, automatic retries, and idempotency, allowing failed jobs to restart safely without duplicating work or corrupting results.
- Implemented an interactive PDF.js viewer with search, term highlighting, and definition cards using React and TypeScript.

Digital Guitar Effects Pedal | C++, Raspberry Pi Pico 2, DSP, I²S

Aug 2026

- Built a Raspberry Pi Pico 2 guitar effects pedal that converts analogue audio to digital with an external ADC, transfers samples over the I²S protocol, applies real-time DSP for delay, feedback, and wet/dry mixing, and outputs through a DAC.