

Akshar Barot

📞 (314) 760-8149 | ✉️ akshar.barot67@gmail.com | 🌐 www.aksharbarot.com | 📷 notAkki | 🌐 aksharbarot

Education

University of Waterloo — Bachelor of Software Engineering, Honors

Waterloo, ON | 2023 - Present

- Cumulative GPA: **89.8%**
- Coursework: Programming Principles (**97%**), Intro to Database Management (**97%**), Software Engineering Principles (**93%**), Linear Algebra (**95%**), Data Structures & Data Management (**90%**), Intro to Combinatorics (**99%**)

Work Experience

Shopify — Software Engineering Intern (Shopify App)

Toronto, ON | Sep. 2025 - Dec. 2025

- Contributing to the Shopify Admin mobile app by enhancing UX and ensuring reliable development for an app used by millions

Firefly — Contract Software Engineer

New York City, NY | Jul. 2025 - Present

- Designed a custom notification message editor with variable injection, enabling dynamic, context-aware alerts for users
- Built interactive automation flow skeletons with **React Flow**, allowing safety managers to reduce setup time by **30%**
- Integrated **Mappedin** and **Mapbox** APIs for building and level selectors, improving navigation across large facilities and campuses

Shopify — Software Engineering Intern (Merchant Authentication)

Toronto, ON | Jan. 2025 - Apr. 2025

- Designed dynamic, context-aware security banners on verification prompts, displayed to **500+ users/day** across the platform
- Re-architected **GraphQL** middle layer to route direct REST calls, reducing query latency and improving performance by **20-25%**
- Resolved a high-severity HackerOne exploit and resolved **10+ production bugs**, strengthening platform reliability and trust
- Led migration off legacy VMs by refactoring configs and writing rollout documentation, improving development speed by **15-20%**

Rootly — Contract Software Engineer

San Francisco, CA | Nov. 2024 - Jul. 2025

- Built a status page aggregator that monitored **800+** SaaS services with sub-second live data and complete history tracking
- Standardized disparate API payloads into a normalized schema, supporting consistent updates across **4 major status providers**
- Developed an LLM-powered incident reporting tool to generate outage summaries, cutting support team response time greatly

Wat Street — Lead Frontend Developer

Waterloo, ON | Feb. 2024 - Aug. 2025

- Designed and deployed the club website with optimized performance and accessibility, achieving **100/100** Lighthouse scores
- Architected a backtesting application for algorithmic trading, integrating stock and crypto APIs for live and historical analysis

Projects

Spots — Classroom Availability Map

10,000+ users within 5 days | Next.js, Flask, Python, Mapbox, REST API

- Launched a full-stack app to help students with real-time classroom availability using geolocation and university data
- Built a custom Flask API to fetch and process university data, reducing client load times by **30%** across all devices
- Implemented a **Next.js** frontend with interactive **Mapbox** maps and markers, improving usability and student experience

Axiom — Proof Correctness Code Editor

Adopted by the University of Waterloo | Next.js, Monaco, Express, Socket.io

- Built a proof correctness editor supporting multi-file tabs, tooltips, and auto line numbering improving usability for students
- Designed file explorer and tab system for preloaded assignments, enabling easier navigation compared to legacy editors

Jarvis — Interactive Hologram Environment

Featured on OpenCV Live | Next.js, TypeScript, Python, Flask, OpenCV, Mediapipe, Three.js

- Built a gesture-controlled 3D hologram environment using **OpenCV** and **Mediapipe** for live hand tracking and recognition
- Integrated hand tracking, depth sensing, and speech commands with the **Web Speech API** for fully multimodal interactions
- Rendered dynamic 3D models with **Next.js** and **Three.js**, using **WebSockets** for smooth, seamless hologram responsiveness

BASIC Web — Basic Compiler for Web Dev

UofT Hacks '24 Winner | TypeScript, JavaScript, HTML/CSS

- Designed and implemented a custom imperative programming language with grammar rules and syntax specification
- Built a TypeScript compiler using recursive descent parsing to generate an abstract syntax tree and runtime environment

Skills

Languages & Frameworks

TypeScript, JavaScript, Python, C/C++, Ruby, SQL, Next.js, React, React Native, Flask, Rails, Node.js

Data & Libraries

GraphQL, REST, Supabase, MongoDB, Prisma, PostgreSQL, WebSockets, Socket.io, OpenCV, Mapbox

Tools & Platforms

Git, Linux, UNIX, Docker, Firebase, Figma, Jupyter Notebook