Zac Finkelstein

647-625-5761 | zacfinkelstein@gmail.com | zacfinkelstein.ca | linkedin.com/in/zacfinkelstein | github.com/zacfink | Toronto, ON

Education

Queen's University Kingston, ON

Bachelor of Computing, Specialization in Cognitive Science *September 2024 – June 2028*

- Relevant Coursework: CISC 360 (Programming Paradigms), CISC 457 (Image Processing), ARIN 101 (AI in Society), CISC 204 (Logic for Computer Science), COGS 201 (Cognition and Computation)

Experience

RBC Dominion Securities April 2025 – Present

Student Intern *Toronto, ON*

- Built a master AI agent that handles the team's emails, documents, research and calculations; it is used daily by the advisor and all three associates.
- Organized almost 20 years of the team's files and made finding any record near-instant, so associates no longer interrupt the advisor to track things down.
- Built a Python tool that turns slides and scripts into AI-narrated videos, producing 10+ hours of client training content and cutting recording time by 80%.
- Developed and maintained the advisor's client-facing websites with HTML5, CSS, and JavaScript.

Co-Chair June 2026 – Present

Queen's Web Development Club *Kingston, ON*

- Co-lead the club and its 7-person executive team: hiring directors, running a ten-week fall tutorial series, and starting this year's curriculum.
- Previously Education Executive (September 2024 – June 2026): taught weekly React, Next.js and Git workshops with a 100% participation rate and supervised 2+ project teams that shipped client websites on time.
- Rebuilt and launched qweb.dev (React, TypeScript, Vite, Supabase), moving all club content (events, team, sponsors, projects) into a database the execs can edit without code changes.

Projects

SupaBaseFolder | *Electron, Node.js, Supabase, SheetJS* September 2026

- Built an open-source macOS menu bar app that keeps every Supabase table live as an .xlsx or .json file, with two-way Realtime sync, an offline edit queue, and Excel lock detection; covered by 16 automated tests.
- Designed it so AI agents can run a backend by editing files: a generated schema guide, a confirm guard on bulk deletes, and a restore log for every overwritten row.

Screen Intelligence | *Python, GPT-4o, PyAutoGUI, OpenCV, Tesseract* 2025

- Built a macOS agent that takes a plain-English instruction, reads the screen with GPT-4o, plans steps from a fixed action vocabulary, and drives the mouse and keyboard to carry them out.
- Verifies every step with before-and-after screenshots and re-plans when the screen doesn't change as predicted, with an OCR fallback for finding on-screen text and confirmation prompts before risky steps.

Raised | *Python, PyTorch, Ollama* September 2026

- Personal research study: a recurrent PPO agent learns from random weights to survive a simulated house with caregivers run by local LLMs; the trained agent survived 20 of 20 held-out runs vs 0 of 20 for a random agent.

Brain | *Python, JavaScript* September 2026

- Built a plain-markdown second brain that Claude Code reads each session instead of re-learning context: 117 notes, 58 logged sessions, and a knowledge graph of 501 concepts and 955 links, all browsable in a small local app.
- Wrote 17 working rules Claude follows every session, each added after a real mistake, such as arguing against my project ideas before we build them.

Technical Skills

Languages: Python, TypeScript, JavaScript, SQL (Postgres), Haskell, HTML, CSS, Bash
Frameworks: React, Next.js, Node.js, Electron, React Native, PyTorch, FastAPI, Flask, Tailwind CSS
Tools: Git, Supabase, Docker, AWS (EC2, S3), Google Cloud Platform, Vite, GitHub Pages
AI: Claude Code (skills, MCP connectors, scheduled cloud agents), building AI agents, GPT API, prompt engineering, RAG