

JACOB FU

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TECHNICAL SKILLS

Programming Languages Frameworks/Libraries Tools/Technologies

Python, Java, JavaScript/TypeScript, HTML/CSS, SQL, C, Bash, PowerShell
React, Node.js, Express.js, Next.js, Django, MongoDB, PostgreSQL, Tailwind CSS
Git, GitHub, Docker, AWS, GCP, Postman, Firebase, Jupyter Notebook, JIRA, Figma

PROFESSIONAL EXPERIENCE

Software Developer

Jan 2025 – Apr 2025

PetMap – UC Berkeley Startup

Remote

- Developing a platform using **Firebase, Express, React, Node** with **TypeScript** to connect dog lovers and owners.
- Implemented a real-time map interface using Google Maps API and proximity algorithms for location-based user matching.
- Collaborating on development in **Agile** sprints within an 8-person team, implementing **CI/CD practices** and code reviews.

Digital Media & Marketing Intern

Jun 2024 – Sep 2024

1000 Islands Gananoque Chamber of Commerce

Gananoque, Canada

- Redesigned website by optimizing navigation and layout, boosting weekly visitors by **65%** and session duration by **120%**.
- Produced **60+** promotional assets and videos, driving **500+** impressions per video and supporting **2+** marketing campaigns.
- Optimized Mailchimp email campaigns through A/B testing and refining email designs, increasing click rates by **60%**.

Information Technology Intern

Oct 2023 – Jan 2024

Weehoey

Kingston, Canada

- Developed a **JavaScript** web app to automate employee bonus calculations, saving a client **7+** collective hours per month.
- Improved server maintenance process by automating log reporting via **PowerShell**, reducing labor by **30+** minutes daily.
- Monitored and managed **30+** client servers daily, proactively reporting and resolving security issues to reduce downtime.

PROJECTS

🔗 🌐 **RBveal** | *JavaScript, Next.js, React, Express.js, Node.js, Tailwind CSS* |

- Won **First Place for RBC's Sponsor Prize** among **550+** participants at University of Toronto's UofTHacks 2025 Hackathon.
- Created a phishing simulator with dynamic emails via **Nodemailer**, banking UIs remade with **React**, and AI call-agents.
- Built a real-time AI call system using **WebSockets, Twilio, OpenAI**, and **Deepgram** for conversations with **<2s** latency.

🔗 🌐 **FairFi** | *JavaScript, Next.js, React, Express.js, Node.js, MongoDB, Tailwind CSS* |

- Won **NSBEX P&G Fintech Sponsor Prize** among **640+** participants at McMaster University's DeltaHacks 2025 Hackathon.
- Built a web app using **Twilio** and **Cohere** to detect employee bias using AI customer calls, storing data in **MongoDB**.
- Developed a bias visualization dashboard, allowing real-time analysis of sentiments using **Cohere's Command R+ Model**.

🔗 🌐 **AnonAlyze** | *JavaScript, Next.js, React, Express.js, Node.js, Tailwind CSS* |

- Won **Best Security Hack** among **240+** participants at York University's CTRL+HACK+DEL 2024 Hackathon.
- Created a full-stack web app using **OpenAI** and **Apify** APIs for data and analysis to identify users' privacy vulnerabilities.
- Designed RESTful API endpoints with **Node.js** and **Express.js** for social media data processing and privacy insights.

🔗 🌐 **MelodyVe** | *JavaScript, Next.js, React, Express.js, Node.js, MongoDB, Tailwind CSS* |

- Created a full-stack web app to analyze users' musical compatibility using **Spotify** and **OpenAI** APIs for data and analysis.
- Built REST APIs with **Node.js** and **Express.js**, reducing data processing latency by implementing efficient request handling.
- Designed **MongoDB** database with **NextAuth.js** OAuth authentication for user sessions with report storage and retrieval.

EchoBl 🔗 🌐 | *Python | HTML/CSS | Django | PostgreSQL | SQLite*

- Developed a discussion platform using **Django** and **Python** enabling users to create real-time topic-based debate rooms.
- Built complete user system with authentication, profiles, and messaging using **Django auth** and **SQLite** database.
- Scaled application through **PostgreSQL** migration and Render cloud deployment, implementing secure database.

EDUCATION

University of Waterloo

3.94/4.00 GPA

Honours Bachelor of Computer Science and Financial Management

Waterloo, Canada

- **Awards:** Robert Harding Entrance Scholarship (\$5000), President's Scholarship of Distinction (\$2000)
- **Relevant Courses:** Designing Functional Programs, Financial Markets & Data Analytics, Algorithm Design & Data Abstraction, Tools & Techniques for Software Development.