Michael Han

michaelhan.dev

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Skills

Languages: Python (Pandas, Numpy, Pygame), Java, C/C++, R, JavaScript, HTML/CSS, MATLAB
Data: MongoDB, Firebase, Supabase, PostgreSQL, MySQL, NoSQL, SQL, Clerk, Winnolin, Monolix
Frameworks: React, Node, Angular, Tailwind, Vue, Express, Next, Mongoose
Other: SOLIDWORKS, Figma, PowerPoint, Word, Excel, Power BI, gpt4, VS Code, Git, GitHub, AWS Codecommit / EC2

Professional Experience

Full-Stack Developer | Xetlink AI **Aug 2023 - Present**
- Solving integration issues with Zoom, Google meet, and Microsoft teams for a startup which raised $300,000 pre-seed using MongoDB, Express, Node.js, Angular.js, AWS Codecommit and EC2
- Building a google chrome extension to extract ffmpeg files through a headless browser using Javascript and MongoDB

Full-Stack Developer | Juploy.com **Jul 2023 – Present**
- Developing the next generation job board by saving users 50-70% time on job applications
- Building using Tailwind, Supabase, Next.js, Clark, PostgreSQL

Undergraduate Research Assistant | University at Buffalo School of Pharmacy **May 2023 – Aug 2023**
- Performed mathematical modelling and regression analysis on concentration of medications in pharmacokinetics datasets comprising of 2,000+ data points using Python (Pandas), Winnolin and Monolix under Dr. Qing Ma

Extracurriculars

Software Engineer | Queen's Technology and Media Association **Mar 2023 – Present**
- Developing a phone screentime app which punishes users for exceeding their set limit via a monetary fine.
- Building using Express, React Native, MongoDB, Mongoose, Stripe API, JavaScript

Quantitative Analyst | Queen's Algorithmic Network & Trading Team **Sep 2022 – Apr 2023**
- Created a stock trading algorithm, using Python through QuantConnect, returning a 3% yield increase
- Traded a dynamic universe of 100 stocks based on a 30-day moving average and rsi

Software Engineer | Queen's Biomechatronics Design Team **Sep 2022 – Apr 2023**
- Designed and constructed load-bearing leg exoskeletons to assist firefighters lift a load of 40 lbs
- Developed code using Arduino and Git to compile data from the force load, and range of motion

Projects

Smart Flash Cards | Vue.js, Tailwind, Flask, Python, Node, GPT4 **| ↗**
- A flashcard generator site which autogenerated flashcards for a user from pdfs and gamified the learning experience. Used GPT4 to parse pdf and extract summaries. Connected a python backend to a tailwind, and vue.js frontend to display flashcards in a user-friendly interface

Pitch Perfect | Figma, Python, JavaScript, HTML/CSS, Flask, GPT4 **| ↗**
- A pitch generator which created slides and a corresponding pitch script based on a prompt, a logo idea, and the length of your pitch. Prompt engineered slideshow and connected it to JavaScript frontend.

Education

Mathematics and Engineering – Specialization in Software| Queen's University **Sep 2022 - Apr 2026**
Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming, Computer Architecture
Highlights: 1 of 25 students accepted in the specialized stream in the ECE innovation class of 2026 at Queen's University

Awards

Awards: QHacks 2nd Place, Principal's Scholarship Queen's University ($4,000), Collision Scholar ($1,300), Allan A Martin Alumni Award ($1,000), Senior Athlete Award ($500), 1st place Cawthra STEM Competition, Ontario Scholar, Ontario Citizenship Medallion

Additional Information

Interests: Sustainable Technology, Baseball, Youth Athletics, Software Development, Entrepreneurship, Hiking, Climate Tech
Languages: English (Native), Mandarin (Native)
Sustainable Tech and Entrepreneurship: Read about my ideas on the next big things and climate tech! michaelhan.substack.com/