

DOUGLAS CHEN

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EDUCATION

University of British Columbia

Bachelor of Science in Computer Science, Co-op program

Vancouver, BC

Sep 2023 – May 2027

- Relevant Courses: Object-Oriented Design, Algorithms and Data Structures, Operating Systems

WORK EXPERIENCE

Software Developer Intern | InsideDesk

Jan 2025 – Aug 2025

- Built production-ready scrapers using **Puppeteer**, automating the collection of **1M+** claims from insurance portals
- Architected **AWS** infrastructure to automatically route and process **125K+** emails using **CDK, Lambda & Redis**, saving clients **250+ hours/month**
- Resolved a 3-year QA bottleneck with **Python and SQL** automations, speeding up a key testing process by **20x**
- Analyzed **AWS CloudWatch** data to pinpoint and resolve a critical bug, improving data collection reliability by **8x**
- Automated deployments for containerized jobs using **Bitbucket Pipelines, docker, and Linux shell scripts**
- Managed PII in compliance with HIPAA regulations, ensuring secure data access, storage, and transmission

AI Consultant | Self-employed

Aug 2024 – Oct 2024

- Advised a dental software company on developing AI-powered insurance data management solutions
- Deployed a **full-stack** platform to curate human feedback from experts and improve AI model (**React, Next.js**)
- Engineered an **LLM** chunking algorithm to process large PDFs, improving data extraction accuracy by **3.5x**

AI Software Developer Intern | Exchange Solutions Inc.

May 2024 – Aug 2024

- Developed an **AI agent** that creates mobile app prototypes under **30 minutes** using a **human-in-the-loop** design
- Boosted project development speed by **2x** by implementing autonomous package installation and file management using LLMs, empowering an AI agent to write over **70%** of its own frontend codebase
- First intern to earn a **Bravo Certificate for Innovation** from senior management after demoing to **100+** co-workers

PROJECTS

Free Food @ UBC | TypeScript, React, Vite, Deno | Visit

- Launched a platform to combat food insecurity for students by sourcing events with free food from **400+ orgs**
- Drove **3K visits** and **100+ active users** in under 2 weeks with a **\$0 budget** through social media platforms

AI Rubik's Cube Solver | Python, PyTorch, Deep Q-Network | Code

- Constructed an RL algorithm to solve a 2x2x2 rubik's cube, achieving **99.6% solve rate** for under 6 mixes
- Implemented **Deep Q-Network** with curriculum learning and target network stabilization using **PyTorch**
- Reached an **85% solve rate** for under 10 mixes, demonstrating model generalization beyond training data
- Sped up training algorithm by **4x** through hyperparameter tuning and compressing the state representation

Spider Cave Game | Godot, GDScript | Demo

- Simulated spider movement using **inverse-kinematics**, enabling natural adaptation to uneven walls and ceilings
- Developed debugging/testing tools to maintain project consistency and functionality, saving the team **20+ hours**

SKILLS

Languages: TypeScript/JavaScript, Python, Java, C++, Shell Script, HTML, CSS

Frameworks/Tools: AWS, PostgreSQL, Docker, LLMs, Git, Node, React, Jest, Puppeteer, Playwright

AWARDS

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| • Top 5 UBC CIC Generative AI and Sustainability Hackathon | 2024 |
| • Group 4 Honour Roll Canadian Computing Senior Competition | 2023 |
| • Top 10 Lighthouse Hacks Hackathon | 2022 |