

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 **AWS** infrastructure to automatically process **320K+** emails using **Redis**, saving clients **210+ hours/month**
- Developed and maintained bots using **Puppeteer**, automating the collection of **1M+** claims from insurance portals
- Resolved a 3-year QA bottleneck with **PostgreSQL** and **Python** scripts, 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**

AI Consultant | *Self-employed*

Sep 2024 – Oct 2024

- Secured a **\$5K** contract with a dental software company to develop AI-powered data management software
- Deployed a **full-stack** web app to curate human feedback from experts and improve an AI model (**React**, **Next**)
- Engineered an **LLM** chunking algorithm to process large PDFs, improving data extraction accuracy by **3.5x**

AI Software Developer Intern | *Exchange Solutions* | *Demo*

May 2024 – Aug 2024

- Developed an **AI agent** that creates mobile app prototypes under **30 minutes** using a **human-in-the-loop** design
- Implemented autonomous file management using **LLMs**, enabling an AI agent to generate **70%** of its own code
- 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, Vercel, Google Analytics* | *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 custom RL algorithm to solve a 2x2x2 rubik's cube, achieving **99.6% solve rate** for under 6 mixes
- Reached an **85% solve rate** for under 10 mixes, demonstrating model generalization beyond training data
- Implemented **Deep Q-Network** with curriculum learning and target network stabilization using **PyTorch**
- Sped up training algorithm by **4x** through hyperparameter tuning and compressing the state representation

Portal Wizard | *Java, Object-Oriented Programming, JProfiler* | *Demo*

- Designed and developed a 2D portal game using **Java**, **Object-Oriented Programming** and **LibGDX**
- Optimized portal algorithm, **doubling** frame-rate; debugged memory leaks using **JProfiler**, reducing memory by **3x**

SKILLS

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

Frameworks/Tools: AWS, Redis, PostgreSQL, Docker, Bitbucket Pipelines, LLMs, Git, Node, React, Next, Jest, Puppeteer

LEADERSHIP

Program Assistant | *Shad Canada*

- Dedicated **90+ hours/week** to facilitate a month-long STEAM program for student-led entrepreneurship projects
- Delivered a workshop on the applications and safety of AI, attracting **25+** students to attend a follow-up session
- Maintained a respectful audience of **64** high school students during long hours of lectures and workshops