DOUGLAS CHEN

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TECHNICAL WORK EXPERIENCE

Software Developer Intern | *InsideDesk*   Jan 2025 – Aug 2025
- Took initiative to resolve a **3-year QA bottleneck** by developing automations with **Python and SQL**, reducing manual testing overhead by **20x** and enabling rapid product iteration
- Analyzed **AWS CloudWatch** data to identify and prioritize a critical web scraping bug impacting the primary success metric, achieving an **8x reduction** in collection failure rate
- Architected an automated MFA bypass system to enable reliable and scalable web scraping without human intervention **(AWS SES, SNS, Lambda, ElastiCache, EC2, Asynchronous Programming)**
- Managed PII in compliance with HIPAA regulations, ensuring secure data access, storage, and transmission
- Built and maintained production-ready scrapers, automating the extraction of **1M+** claims from insurance portals

AI Consultant | *Self-employed*   Aug 2024 – Oct 2024
- Advised a dental software company on developing AI-powered insurance data management solutions
- Developed a **full-stack** platform to curate human feedback from experts and improve the AI model **(React, Next.js)**
- Engineered an **LLM chunking algorithm** to process large PDFs, improving data extraction accuracy by **3.5x** compared to initial **LangChain RAG** implementation

AI Software Developer Intern | *Exchange Solutions Inc.* | ⬈   May 2024 – Aug 2024
- Independently developed an **AI agent** that creates mobile app prototypes within **30 minutes** by leveraging a human-in-the-loop LLM design, enabling no-code software development
- Boosted project development speed by **4x** by implementing autonomous package installation and codebase reading/writing, empowering an AI agent to write **70%** of its own React Native frontend code
- Implemented a **full-stack** application including an intuitive frontend to make an AI agent accessible and easy to use for non-technical users **(Node, React Native, Next, AWS Bedrock & Lambda)**
- First intern at ESI to earn a **Bravo Certificate for Innovation** from senior management after delivering a company-wide demo to **100+** co-workers, demonstrating strong presentation skills

ADDITIONAL WORK EXPERIENCE

Program Assistant | *Shad Canada*   Jun 2024 – Jul 2024
- Dedicated **90+** hour weeks to facilitate a STEAM program involving workshops and student-led entrepreneurship projects, displaying an unwavering sense of responsibility and commitment to student growth and innovation
- Organized and delivered a workshop on the applications, potential, and safety of Generative AI, attracting **25+** students to attend a voluntary follow-up session due to high interest, showcasing the ability to engage an audience
- Maintained an engaged and respectful audience of **64** high school students during long hours of lectures & workshops, demonstrating strong leadership, patience, and communication skills

TECHNICAL SKILLS

Languages: TypeScript/JavaScript, Python, Java, C++, C#, HTML, CSS
Frameworks/Tools: AWS, LLMs, Git, Node, LangChain, React, Next, Flask

EDUCATION

University of British Columbia   Vancouver, BC
Bachelor of Science in Computer Science, Co-op program   *Sep 2023 – Apr 2028*

TECHNICAL EXTRACURRICULAR ACTIVITIES

- **Video Game Development Club Member** | University of British Columbia   Sep 2023 – Apr 2024
- **Competitive Programming Club President** | Port Credit Secondary School   Sep 2021 – Jun 2023

AWARDS

- 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