

REESE CHONG

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EDUCATION

University of Waterloo

Waterloo, ON

Honours Bachelor of Computer Science (BCS)

Virtual Reality Design Team, Cheese Club, Warp Campus Ambassador, Rock Climbing

EXPERIENCE

Software Engineer Intern

Apr 2025 - Present

Elastic Energy

Victoria, BC

- Elastic Energy creates hardware/software to optimize home energy costs and helps utility companies/solar panel installers monitor homes.
- Implemented dashboard for fleet providers to monitor 10,000 consumer appliances in real-time using React, Node.js, and Express.
- Minimized redundant API calls and efficiently updated dashboard data on page focus, by preventing deduplication using TanStack Query
- Worked on firmware in C for Elastic's Energy Router, enabling control of 3 new device types(HeatPump,HVAC,EVs)using the Nordic nRF SDK.

Software Engineer Intern

May 2024 - Aug 2024

McCray Optical, Inc.

Markham, ON

- McCray is an Optical Supply company that services opticians and retailers and has frequent customer support delays.
- Reduced support response times by an average of 3 hours by building a search system to find semantically similar CEO answers to FAQs.
- Streamlined app setup to an asynchronous process by automating ingestion of the CEO and managers' support emails via a Python script.

Full Stack Engineer

Jan 2023 - Apr 2024

SlaySchool.com

Toronto, ON

- SlaySchool is a pre-seed stage EdTech startup providing notes-to-flashcards as a service to 250,000 students.
- Expanded user base by 10,000 users by developing a full-stack AI medical diagnosis trainer built using Next.js + Supabase
- Implemented Vercel edge caching & serverless routes, ensuring **99.9% uptime** when interacting with external APIs (i.e., OpenAI)
- Simplified complex prop chains across 15+ components by refactoring to use the Context API and custom React hooks.

Drone Researcher

May 2023 – Aug 2023

University of Toronto Institute for Aerospace Studies - Flight Systems and Control Lab

Vaughan, ON

- Collaborated with U of T Master's student Ji Tong Chen to research and develop innovative drone technology applications.
- Designed and prototyped slung-payload drone systems for autonomous retrieval of turtles from roadways, enhancing safety for wildlife.

PROJECTS

Torial VideoGen AI | [Live Demo](#) | React, Next.js, TypeScript, Firebase, Google Cloud (GCP)

- Developed a full-stack platform that generates 3Blue1Brown-style explainer videos from user prompts and notes.
- Grew the platform to secure B2B partnerships with EdTech companies with **1M+ users** and 1000+ videos generated in 1 month (June 2025)
- Achieved a 95% reduction in malicious requests by designing a per-IP rate limiter at the API gateway using Redis for centralized counters

Dojang | [GitHub](#) | Python, Postgres, Docker, SQLAlchemy, OpenAI Embeddings

- Developed a free EdTech platform where students upload PDF notes to generate flashcards and mock exams.
- Scaled PDF ingestion to **thousand-page documents** in sub 2 seconds via dynamic batching of DB writes, using SQLAlchemy and Postgres
- Achieved **95%** parsing accuracy on multi-million token documents by decoupling batching from embedding without slowing ingestion.

Clarigo YouTube Filter | Python, TensorFlow, Snorkel, Chrome Extension APIs

- Currently building a Chrome extension that uses a lightweight ML model to filter out non-educational YouTube videos based on metadata.
- Engineered a local classification pipeline using TensorFlow, enabling privacy-preserving inference without sending video data externally.
- Trained custom models on video metadata, achieving high classification accuracy with Snorkel.

ChatGP-Me (Winner of Hack The North 2024) | [Blog Post](#) | Unity, Cohere API, C#

- Unity game where you pretend to be ChatGPT, and AI grades how artificial you sound. One of 12 winners out of **236 teams**.
- Engineered 3 prompt chains for Cohere AI to grade players' responses on their similarity to real LLM responses.
- Developed and optimized C# scripts for game object interactions, movement, and real-time response evaluation.

Lexplora AI Courses | [Blog Post](#) | Python, Next.js, React, Neo4j

- A "Duolingo for anything" app that helps users learn any subject by generating courses on-demand.
- Achieved **400+ users** on launch, by developing CTA-focused landing pages & iterating with users for feedback.
- Utilized the Langchain framework to streamline and enhance content generation processes.

SKILLS

Languages/Frameworks: Python, TypeScript, JavaScript, React, React Native, Next.js, SQL, C++, C#, Java, Racket/Scheme, Bash

Frameworks: React.js, Next.js, FastAPI, Pydantic, NumPy, pandas, sklearn, PyTorch, SQLAlchemy, Snorkel, LangChain, Tailwind

Technologies: Git, Docker, PostgreSQL, Supabase, ChromaDB, AWS, GCP Postman, Langchain