

# REESE CHONG

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## EDUCATION

### University of Waterloo

Waterloo, ON

Bachelor of Computer Science (BCS) and Business Double Degree

Relevant Coursework: Designing Functional Programs, Algorithm Design

## EXPERIENCE

### Software Developer Intern

Jul 2024 - Oct 2024

McCray Optical, Inc.

Markham, ON

- Saved Customer Support **5 hours** weekly by building a semantic search system to find manager-vetted answers to FAQs.
- Created RESTful **FastAPI** routes and a PostgreSQL + vector backend, expediting development **4 weeks** ahead of schedule.
- Achieved vector retrieval time of **13ms** by leveraging ChromaDB's indexing algorithms (62% faster than standard).
- Ensured database maintainability by automating new data ingestion through a custom Pandas script.

### Full Stack Developer

Jan 2023 - Apr 2024

SlaySchool.com

Toronto, ON

- Achieved **600+** users in 2 months for an AI medical diagnosis simulator built with React, Next.js, & Supabase.
- Ensured 99.9% uptime by leveraging serverless functions, edge caching, and zero-downtime deployments using Vercel.
- Eliminated prop-drilling in **15+** components by designing state management using the React Context API and hooks.

### Web Developer

May 2023 - Jan 2024

csya-edu.org

Riverside, CA

- Reduced CSYA's website loading time by **33%** by transitioning from Wix to a modern React/Next.js website.
- Improved issue response time by **12%**, as measured by GitHub Issues, through continuous website maintenance.
- Managed the integration of new developers into the CSYA team, ensuring organization continuity.

## PROJECTS

### Lexplora AI Courses | Python, Next.js, React, Neo4j

May 2023 - Jan 2024

- A 'Duolingo for anything' app that helps users learn any subject by generating courses on-demand using the OpenAI API.
- Achieved **400+ users** on launch, by developing CTA-focused landing pages & iterating with users for feedback.
- Reduced prompt generation latency by **30%** by integrating **LangChain** with optimized caching strategies.

### ChatGP-Me (Winner of Hack The North 2024) | Unity, Cohere API

Sept 2024

- 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.

### Hawkeye Vision Aid (Winner of Hack The North 2023) | Python, Google Cloud Vision

Sept 2023

- Smart glasses software to assist visually impaired individuals by describing lecture whiteboards with AI.
- Achieved fast text-to-speech conversion (under **200ms**) by integrating AdHawk glasses with Google Cloud & Speech APIs.
- Processed lecture notes with **92% accuracy**, leveraging Google Vision for OCR and NLP models for context-awareness.

### InterviewGPT | Python, Langchain, Firestore, smtplib

Apr 2023 - May 2023

- A CLI app that conducts leetcode interviews using the GPT-3 API, saving progress in Firestore.
- Fully automated the candidate evaluation process through asynchronous email reports with smtplib.
- Achieved a fully functional prototype in **2 weeks**, by leveraging **LangChain** for dynamic question handling.

## SKILLS

**Languages:** JavaScript/TypeScript, Python, SQL, Java, C++, Racket (Scheme), Bash, C#

**Frameworks:** React, Next.js, Express, Tailwind, FastAPI

**Databases:** PostgreSQL, MySQL, SQLite, Supabase, MongoDB, ChromaDB, Firestore

**Developer Tools:** Node.js, Git, Docker, Node Package Manager (NPM), GitHub, Vercel, Postman

**Libraries:** pandas, NumPy, Matplotlib, Langchain, smtplib