

# REESE CHONG

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## EDUCATION

### University of Waterloo

Bachelor of Computer Science (BCS) and Business Double Degree

Relevant Coursework: Designing Functional Programs, Elementary Algorithm Design

Waterloo, ON

Expected 2029

## TECHNICAL SKILLS

**Languages:** JavaScript/TypeScript, Python, Java, SQL, (Postgres), Bash, HTML/CSS, Racket (Scheme)

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

**Developer Tools:** Git, Docker, Google Cloud, VS Code, Visual Studio, PyCharm, Supabase, MongoDB, Firebase, SQLite

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

## EXPERIENCE

### Software Developer Intern

Jul 2024 - Oct 2024

McCray Optical, Inc.

Markham, ON

- Saved Customer Service Dept. **5 hours** weekly by implementing **vector search** for product FAQs in **Python**.
- Designed RESTful **FastAPI routes** and a **Postgres** backend, expediting frontend 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.

### Web Developer

Dec 2023 - Apr 2024

SlaySchool.com

Toronto, ON

- Achieved **600+** users in **2 months** for an AI medical training simulator built with **React, Next.js, & Supabase**.
- Built a RESTful chat API endpoint using **Next backend handlers** and OpenAI's GPT-4 API, successfully handling interactions for over **600** users with a **99.9%** uptime, enabling real-time, AI-powered conversations.
- 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

### Explora 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.
- Maintained a **6-week** turnaround by developing the front-end and implementing **12+** UI and lesson components.
- 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, Google Cloud, Cohere API

Sept 2024 - Sept 2024

- Playful Unity game selected as a finalist from **236 teams** using **Cohere AI** and **Google Cloud** to simulate being a LLM.
- Developed and optimized **C# scripts** for game object interactions, movement, and real-time response evaluation.
- Engineered 3 prompt chains for Cohere AI to grade players' responses on their similarity to real LLM responses.

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

Sept 2023 - 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, OpenAI API, Firebase Firestore, smtplib

April 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.