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, and 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.
- Boosted organic traffic by **25%** over six months by adding metadata and using server-side rendering, measured by Vercel.

PROJECTS

Lexplora AI Courses | Blog Post | *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.
- Utilized the Langchain framework to streamline and enhance content generation processes.

ChatGP-Me (Winner of Hack The North 2024) | Blog Post | *Unity, Cohere API, C#*   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) | Blog Post | *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 | Blog Post | *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/Frameworks: JavaScript/TypeScript, React, Next.js, Python, SQL, Java, C++, C#, Racket/Scheme, Bash, Express
Databases: PostgreSQL, Supabase, ChromaDB
Technologies: Node.js, Git, Docker, NPM, FastAPI, Postman, pandas, Langchain, smtplib, TailwindCSS