Shane Chen

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SKILLS

Languages: JavaScript, HTML, CSS, TypeScript, Python, Java, C, C++, SQL
Frameworks/Libraries: React, Angular, Express, Node.js, Django, FastAPI, WebSocket, GraphQL, PostgreSQL
Tools/Technologies: Git, Docker, Bash, Linux, GitHub Actions, AWS, Firebase, Hugging Face, NumPy, Scikit-learn

EXPERIENCE

Software Developer Intern
May 2025 - August 2025

Poket Data Collection
Toronto, Ontario

- Developed full-stack features for Poket's mobile apps built on **React** and **Java** using the **MVVM architecture**
- Built a high-performance transcription system using OpenAI Whisper, delivering **96%** faster processing than audio playback by leveraging **AWS CloudFront** and **FFmpeg**
- Streamlined DevOps workflows for iOS deployment, cutting build-to-release time by **55%** through a **CI/CD pipeline** with **Xcode**, **GitHub Actions**, and AI-powered code review for automated quality checks

Lead Mobile Developer
December 2021 - July 2024

William Lyon Mackenzie C.I.
Toronto, Ontario

- Led a team of five to engineer and ship a React Native app for school events reaching **600** downloads per semester
- Managed a collaborative and cohesive workflow using **Git** version control and **Agile** practices
- Integrated dynamic event data from a **Django REST API** with push notifications and real-time updates, increasing user engagement by **30%** through timely alerts and calendar sync

President and System Administrator
September 2023 - June 2024

Mackenzie Computer Programming Team
Toronto, Ontario

- Supported over **1,400** users by administering mcpt.ca, an online judge for programming problems
- Resolved infrastructure and content issues through QA testing and a proprietary ticketing system
- Strengthened national contest preparation by collaborating with curriculum leaders and authoring **30+** problems

PROJECTS

Convergence | *TypeScript, React, FastAPI, SQLite, Oracle Cloud*
- Architected and deployed a multiplayer alternate reality game, supporting **100+** concurrent users per instance
- Developed a responsive **React Router** frontend delivering seamless real-time game updates to users
- Achieved millisecond-level interaction validation through a low-latency backend built with **Python** and **SQLite**
- Organized a 3-hour game in Toronto with **50+** participants, managing real-time gameplay tracking with **PostHog**

Re-Prompt That | *Next.js, Node.js, WebSocket, AWS, Docker*
- Engineered a multiplayer LLM prompt reverse-engineering game, implementing **vector embeddings** for scoring
- Developed and deployed a **JavaScript** backend with cached **Hugging Face** models, hosted on **AWS S3**
- Reduced cloud deployment time to **<10** seconds by leveraging a **Docker** workflow on **GitHub Actions**

MatchMadeIn.Tech - Hack the North Winner | *React, Flask, GitHub, GraphQL, Scikit-learn*
- Developed a **GitHub user-matching app** to connect users with similar commit frequencies and language profiles
- Optimized GitHub API data queries using **GraphQL**, enabling querying up to **100,000** users per hour
- Contributed to a robust matching API leveraging **K-Means clustering** with **Scikit-learn**, **Flask**, and **Postman**

EDUCATION

University of Waterloo
September 2024 - May 2029

Bachelor of Computer Science
3.96/4.0 GPA

- 1 of 10 recipients of the Faculty of Mathematics National Scholarship
- Relevant Coursework: Object-Oriented Development, Compilers, Data Structures, Algorithm Design