ERIC QIU

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SKILLS

Languages: JavaScript, HTML/CSS, Python, TypeScript, SQL, Java, C/C++, Julia
Frameworks: Pandas, React, React-Native, Postman, Django, Flask, Next.js, Bootstrap, TailwindCSS, Redux, ChakraUI
Tools: Git, Linux, GitHub, Docker, MS SQL Server, PowerBI, Excel, XCode, CUDA, BLE

EXPERIENCE

Microart Services Inc.
Jan 2025 - Apr 2025
Software Engineer Intern
Markham, Canada

- Built a real-time device monitoring system using **Bluetooth Low Energy (BLE)** to track temperature and battery levels across 5+ BLE sensors, supporting background data updates on iOS and Android devices.
- Engineered a cross-platform BLE connection system in **React Native** to reduce average connection time by **90%** by restructuring pairing flow, clearing stale device states, and implementing auto-reconnection across **iOS** and **Android**.
- Redesigned onboarding flow by integrating device setup directly into the first-time user experience, reducing setup time by **20%** and improving first-attempt connection success by **30%**.
- Built a **Swift**-based Live Activity monitor for iOS to display real-time sensor data on the lock screen, and connected it to the **React Native** app through a custom native bridge for seamless integration and control.
- Diagnosed and resolved BLE inconsistencies across platforms during development using **react-native-ble-plx**, improving connection stability and developer testing reliability.

Questrade
May 2024 - Aug 2024
Data Science Intern
North York, Canada

- Developed **Python** scripts to flag risky stocks based on volatility and sector, streamlining monthly portfolio analysis.
- Segmented TFSA clients by assets and trading behavior using **SQL**, targeting outreach to low-engagement accounts.
- Redesigned the client onboarding flow, improving layout and simplifying steps, increasing user acquisition by **25%**.
- Analyzed fee structures across account tiers, identifying cost-saving opportunities, reducing client expenses by **15%**.

Inossem Canada Inc.
May 2023 - August 2023
Software Engineering Intern
Markham, Canada

- Built a **React Native**+**TypeScript** mobile app to streamline inventory lookup, increasing warehouse productivity by **25%**.
- Built a "Product Transfer Request" page that lets warehouse staff request inventory moves between locations, reducing manual stock reallocation time by **40%** and improving accuracy across sites.
- Optimized UI components to reduce load times by **30%**, improving speed of task execution for warehouse staff.

PROJECTS

RedTokBot 🐙 | *Bot that fetches stories from Reddit and posts on TikTok*
- Trained a custom TTS Model using **GlowTTS** to mimic realistic speech patterns.
- Used **Hifi-GAN** to ensure high quality and clarity voices for more natural sounding audio.
- Reddit-fetching scripts developed using **Julia**, integrating TTS scripts using PyCall.
- Leveraged NVIDIA's **CUDA** GPU acceleration to reduce model training time.

University Residence Rater 🐙 | *Allows users to rate Ontario university residences*
- Developed a dynamic web application using **Next.JS** and **Python Django**.
- Enabled users to rate and review university residences for informed housing choices.
- Designed and implemented RESTful API endpoints for secure user authentication, data retrieval, and storage.
- Utilized **TailwindCSS** for responsive and visually appealing UI components, enhancing the application's overall aesthetic.
- Integrated **Firebase** for efficient data management, ensuring real-time updates and robust database functionality.

Coder Search 🐙 | *Search engine for programmers*
- Built a dev tool using **Next.js** and **Python** to search code snippets and resources across Stack Overflow.

EDUCATION

University of Waterloo
Waterloo, Canada
Bachelor of Computer Engineering, Honors
Sept. 2022 – Present