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**About Me:** Skilled in building innovative software solutions with a focus on efficiency, scalability, and user experience. Proficient in JavaScript, Python and C, with hands-on expertise in areas such as web-based services, GUI & CLI development, audio processing, and some experience with cloud infrastructure. Adept at solving complex problems, optimizing performance, and leading projects to success.

# **Recent Experience:**

# Private Client | 2024-2025

Role: Software Developer, Consultant

- Designed and developed GUI and CLI applications in both **Python** and **C++** to automate **OCR** and **image processing** tasks. Utilized libraries such as **Tkinter** and **Tesseract**.
- Built functionality to process image directories, extract text, generate sub-images, and create detailed **CSV reports** with bounding boxes and dictionary comparison results.
- Packaged the application into a standalone executable for **Windows** using **PyInstaller**, enabling easy **distribution** and **cross-platform** compatibility.

### Scaling Startups (Scaling Startups) | 2023-2024

Role: Web Developer, Project Manager, Consultant

- Managed development tasks and led significant performance optimizations across the platform, reducing response times and improving stability for both web and mobile applications.
- Improved database efficiency by cleaning up unused resources and optimizing load bearing queries, reducing times by up to 3x on high traffic pages.
- Addressed server stability by mitigating vulnerabilities, fixing **memory leaks**, and handling a **brute-force attack** on the database.
- Evaluated **infrastructure** options for possible migration from **Heroku** to **AWS** using **Terraform** to lower operational costs and set up a stable local development environment using **Docker**.

Tape Sim (Studio Carquinez) | 2024

Role: Software Developer, Audio Engineer

- Developed a **MacOS desktop application** designed to simulate the experience of using a traditional tape machine for recording and playback of audio tracks.
- Implemented core audio processing logic using **C** and the **PortAudio** library to record

and play audio at 48kHz, 24-bit mono quality.

• Designed the user interface using **SwiftUI** for MacOS (**Intel x86\_64 architecture**), providing intuitive controls for recording, rewinding, fast-forwarding, and stereo bounce features.

### Audiopile (<u>Audiopile)</u> | 2020 - 2024

Role: Mobile and Web Developer, Infrastructure | Audiopile

- Developed **UI elements** and **API calls** for **React** and **React Native** components.
- Built **CRUD endpoints** in a **Python** web service to enhance functionality.
- Modified Google Cloud infrastructure using Terraform, migrating the entire stack from HTTP to HTTPS, automating DNS management with Cloudflare, and enabling full SSL encryption from Cloudflare to GCP. Limited inbound IPs to Cloudflare outbound IPs and successfully rolled out these changes with minimal downtime, significantly improving performance, security, and scalability.

# Far Reach Co. (Far Reach Co.) | 2023 - 2025

Role: Web Developer, Co-Founder

- Developed an online, **real-time virtual tabletop** and character sheets for role-playing games.
- Designed and implemented custom JavaScript SPA frameworks
- Created CRUD and websocket services using Node.js with TypeScript and Socket.io.
- Built database models and services with PostgreSQL and caching with Redis.
- Integrated AWS S3 and CloudFront for image asset storage and retrieval.

PolkaDot Sky Software (PolkaDot Sky Software) | 2021 - 2022

**Role**: Web and Mobile Developer | *PolkaDot Sky Software* 

- Automated iOS/Android deployment systems.
- Designed and implemented **UI elements** and **API calls** for **React Native** components.
- Processed sensitive **PHI user data** for **COVID** testing in an **Elixir** web service.
- Developed **offline-mode capabilities** in a React Native application for a network-dependent system.
- Integrated **geolocation** functionality to manage physical assets containing **NFC** chips.