

Julian Ranieri

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Language & Tooling Proficiencies

Languages

- JavaScript/TypeScript
- HTML + CSS
- C/C++
- Python
- OCaml
- Swift
- Java

Tooling & Frameworks

- React & React Native
- Flask & Django
- Tkinter & Pyinstaller
- Tesseract
- PortAudio
- SwiftUI
- Terraform
- Docker
- AWS (S3, CloudFront)
- Redis
- PostgreSQL
- Google Cloud Platform
- Heroku
- FabricJS
- Node.js
- Socket.io

About

I am an independent contractor from the SF Bay Area. As a developer, I am thorough in **problem-solving**, delivering reputable, well-documented, and secure solutions for my clients. As a consultant, I evaluate **cost-benefit analyses** for environment-specific challenges, providing high-quality advice to create **maintainable** and **successful products**.

Recent Experience

Private Client

Role: Software Developer, Consultant

- Designed and developed multiple **Python** applications with both **Tkinter GUI** and **CLI** to automate **OCR** and **image processing** using **Tesseract** and **PIL**.
- Built functionality to process image directories, extract text, generate sub-images, and create detailed **CSV reports** with bounding boxes and dictionary comparison results.
- Implemented a **page generator** to compile sub-images into ransom-note style pages with customizable settings for layout, padding, and word indexing.
- Packaged the application into a standalone executable for **Windows** using **PyInstaller**, enabling easy **distribution** and **cross-platform** compatibility.
- Developed a **user-friendly settings interface** for configuring parameters for Tesseract, CSV delimiters, and sub-image dimensions, supporting flexible user workflows.

Tape Sim ([Studio Carquinez](#))

Role: Software Developer, Audio Engineer

- Developed Tape Sim, a **desktop application** for **macOS** 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.
- Enabled **multi-track audio recording** with support for as many tracks as there are inputs in the user's default audio device, saving each recording as .wav files to a specified directory.

Peakery ([Scaling Startups](#))

Role: Web Developer, Project Manager, Consultant | *Peakery via Scaling Startups*

- **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**.

Audiopile ([Audiopile](#))

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.](#))

Role: Web Developer, Co-Founder

- Developed an online, **real-time virtual tabletop** for role-playing games.
- Designed and implemented **custom JavaScript SPA frameworks** for various **client-side applications**.
- 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](#))

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.