

University of Texas at Dallas, Computer Science B.S. 2015-2019

U.S. Citizen

Plano, TX

Experience

Software Engineer - Vocalife

December 2019 -

Present

- Developed key features and deployed 3D Musica Powered by AI to the Apple App Store
- Co-authored and implemented patent-pending audio software used in flagship projects
- Managed build deployment and production testing to TestFlight
- Implemented server-side product to on-device payment validation system using public-key
- Training, testing, and implementation of machine learning models on mobile devices using TensorFlow and CoreML
- Research and development in realtime AI, audio, and mobile platforms
- UI and marketing design for 3D Musica using Xcode, Adobe Photoshop, Illustrator, Premiere

Software Engineer / Intern - Vocalife

April 2019 – December 2019

- Created, deployed product website for 3D Musica (3dmusica.com) using Angular and TypeScript, used Firebase for database. Pushed data to clients using Google Cloud functions
- Aided in development and testing of spatial 3D sound synthesis
- Audio research and development of realtime constrained software

Digital Art instructor – Dunedin Fine Arts Academy

2016 - 2018

Projects

Clipywrite - Al-Driven Copyright Prevention (Python | Tensorflow | React | AWS Cloud | Docker)

- Extracts audio sources that may flag copyright claim systems using machine learning
- Created pipeline for processing user-provided audio/video, performing inference on them with Tensorflow, and uploading/managing them with AWS S3 Cloud

Japanese-Pop Album Web App (Golang | PostgreSQL | AWS | Vue.js | JavaScript | Bootstrap)

A RESTful full-stack personal website project that hosts and indexes info about Japanese albums. Database deployed to AWS. Backend makes use of Mux for http routing, Postman for testing.

eCommerce Java Database (Java | Spring JDBC | AWS | JUnit | mySQL)

Implemented a mock eCommerce system with a team. Tested written modules in JUnit tests. Consisted of billing, address, purchase, and other interfaces, database schema + queries, and Java backend. Deployed database on Amazon RDS.

Portfolio Site - jorel.cc (CSS/HTML | JavaScript | Bootstrap)

Technical Skills

- iOS development, back-end + full-stack development, machine learning, UI + UX design, DSP
- Languages: Swift, Objective-C, Java, Python, SQL, Go, TypeScript, JavaScript
- Frameworks/Libraries: iOS (UIKit, CoreML, Accelerate, Core Audio, Core Data), Tensorflow, Angular, Spring (JDBC), Hibernate (JPA, JDBC), PyTorch, Bootstrap
- Development Tools: Xcode, Git, Firebase, AWS, Google Cloud, Anaconda, Postman, VScode, IntelliJ, Unix, Vim

Languages

Fluent English, Spanish, 2 yrs. Japanese, 2 yrs. Mandarin Chinese