

## ABOUT

**Results-driven Software Engineer** with advanced qualifications and a valuable skill set. Experienced in creating scalable frontend, client-side, intermediary, server-side, and backend solutions using industry-standard and cutting-edge technologies. Known for analytical thinking, efficiency, and accuracy in fast-paced environments. Strong communicator with years of experience working as a team-player, capable of both collaborative and independent work. Dedicated to exceeding business goals and meeting delivery deadlines.

## TECHNICAL SKILLS

### LANGUAGES

JavaScript

Python

SQL

TypeScript

HTML/CSS

ASP

### TESTING

PyTest

PyUnit

Mocha

Jest

### FRAMEWORKS / RUNTIMES

Node.js

React.js

Django

SolidJS

Express.js

Vue.js

### MICROSOFT

Excel

PowerPoint

Word

Access

Power BI

VBA

### DATABASES

PostgreSQL

SQL Server

MySQL

SQLite

NoSQL

Firebase

### OS

Linux

Windows

macOS

iOS

### DEVOPS / CLOUD

Docker

Kubernetes

AWS

Git

### AND MORE

SDLC

AGILE

SCRUM

API

REST

Troubleshooting

LLM

## WORK EXPERIENCE

### South Bay Auto Auction

Software Engineer

Gardena, CA

Jan 2023 – Present

- Integral in achieving a **15% decrease in labor costs** through building custom REST APIs and automation software.
- Responsible for a **10% increase in net income** by developing automated invoicing software in Python, which identified numerous issues that had been present during manual operation.
- Integral in achieving a **25% decrease in server costs** with strategic refactoring of legacy codebases in classic ASP.
- Design and maintain REST APIs in Python and Node.js, using multiple frameworks including FastAPI, Flask and Express.js.
- Create and maintain automated systems in Node.js and Python for clients and vendors.
- Develop webhook listeners in Python and Node.js to automate vehicle live scan and alert data.
- Design and maintain multiple frontend platforms and dashboards using React.js and SolidJS.
- Collaborate with cross-functional teams and departments to integrate new features and optimize existing processes.

### Outlier AI

AI Trainer

Remote

Jan 2023 – Present

- Peer-review code, a job for which I was hand-selected, reflecting a track record of consistent, high-caliber work.
- Employ advanced software engineering principles to enhance the coding capabilities of generative AI models.
- Design effective prompts to guide AI models in generating the desired output.
- Assess AI systems to ensure they meet quality standards.

### A3 Artists Agency

Film & TV Literary Agent

West Hollywood, CA

Oct 2017 – Jan 2021

- Built a custom web-scraper in Python to provide an ongoing influx of information for the company.
- Generated millions of dollars in sales of client scripts, pitches, and IP projects to major film/TV/digital studios.

### IAG (Independent Artist Group)

Film & TV Literary Agent

Beverly Hills, CA

Sep 2014 – Oct 2017

- Signed, staffed, and sold projects for studio and indie writer, director, and producer clients.

## EDUCATION AND HONORS

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### Loyola Marymount University

Full Stack Software Development Program, 99<sup>th</sup> Percentile

Los Angeles, CA

2021 – 2022

### University of Illinois Chicago School of Law

1L, Dean's List

Chicago, IL

### Arizona State University

B.A., Cum Laude

Tempe, AZ

## PROJECT SAMPLES

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### NEXRAD Weather Radar Viewer with Mapbox

 [Live Demo on Netlify](#)

 [GitHub Repository](#)

**Overview:** High-performance, interactive, full-stack SolidJS web application designed to visualize NEXRAD (Next-Generation Radar) weather data on a dynamic map interface powered by Mapbox GL.

#### Frontend Technologies

- **Framework:** SolidJS
- **Runtime Environment:** Node.js
- **Language:** JavaScript
- **Mapping Library:** Mapbox GL
- **State Management:** SolidJS Signals (createSignal, createEffect, etc.)
- **REST API Communication:** Native Workspace API

#### Backend Technologies:

- **Language:** Python
- **REST API Framework:** Flask
- **Cloud Storage:** AWS S3
- **Computations:** Py-ART, NumPy
- **Plotting:** Matplotlib
- **AWS SDK:** Boto3
- **WSGI Server:** Waitress

#### Frontend Key Features:

- **NEXRAD Visualization with Mapbox:** Level 2 (Reflectivity) and Level 3 (Hydrometeor, Precipitation) radar overlays on interactive map.
- **Time-Based Animations:** Animates radar scans over time with slider, controls, and variable speed.
- **Tilt Animations:** Animates tilt angles with slider, controls, and elevation angle display.
- **Performance Optimization:** Aggressive client-side caching, preloading and smart cache cleaning.
- **Real-time Data Awareness:** Backend API connection for automatic interface updates.

#### Backend Key Features:

- **NEXRAD Data Retrieval:** Fetches NEXRAD radar data files from AWS S3.
- **Radar Data Processing:** Uses Py-ART and Numpy for data interpretation and geographic bounding box metadata calculation.
- **Radar Image Creation:** Generates transparent PNG plot overlays using Matplotlib.
- **REST API for Frontend:** Flask API serves processed PNG images and metadata to frontend, and handles CORS for frontend integration.

### Medication Reminder System with Voice-Driven AI

 [GitHub Repository](#)

**Overview:** Voice-driven AI, Node.js-based medication reminder system with live phone calls, voicemail, and SMS texting fallbacks, utilizing Text-to-Speech (TTS), Speech-to-Text (STT), and a Large Language Model (LLM).

#### Technologies Used:

- **Runtime Environment:** Node.js
- **REST API Framework:** Express.js
- **Real-time Communication:** Twilio (Voice API, TwiML, Media Streams, Recordings API, SMS API)
- **TTS (Text-to-Speech):** ElevenLabs (real-time streaming transcription)
- **STT (Speech-to-Text):** Deepgram (real-time streaming transcription)
- **LLM (Large Language Model):** Google Gemini
- **Database:** Cloud-based NoSQL database via Firebase
- **WebSockets:** ws, express-ws
- **Testing:** Jest, Supertest
- **Development Tunneling:** Ngrok

#### Key Features:

- **Outbound Call Trigger:** Initiate voice calls to specified phone numbers via a POST /call REST API endpoint.
- **Real-time TTS:** Uses ElevenLabs to generate voice prompts for medication reminders and voicemail messages.
- **Real-time STT:** Leverages Deepgram via WebSockets (<Stream>) to transcribe user speech during calls in real-time.
- **LLM Interaction:** Integrates with Google Gemini to provide conversational responses to user queries about specific medications, dosage, frequency, instructions, storage, pharmacies, etc., based on predefined factual data and a system prompt. If the patient attempts to utilize the LLM for anything other than the predefined topic, the model will refuse to deviate, steering the conversation back to their medications.