

Roberto Chavez Jr

BACHELORS OF SCIENCE IN COMPUTER ENGINEERING

✉ rchavezj.rc@gmail.com

📞 7606195734

🌐 [linkedin.com/in/rchavezj](https://www.linkedin.com/in/rchavezj)

🐙 github.com/rchavezj

WORK EXPERIENCE

Software Engineer (Part Time)

Prosway

04/2025 - Present

(REMOTE) Memphis Tennessee

Real estate matchmaking service

Achievements/Tasks

- Developing a CRM applicatiton using the following: SvelteKit, Supabase, Websockets, Twilio Chatbot API.

Web Dev | Full Stack Engineer

ESP Personnel

02/2020 - Present

Thousand Palms, CA

<https://esppersonnel.com/>

Achievements/Tasks

- Worked closely with stakeholders and upper management in healthcare. Initially hired as a front end developer but given opportunities to work on back end .Net frameworks and database schemas in Microsoft SQL Server
- Coding in the following languages for other projects within the company: C# (Visual Basic , MVC, Classic ASP , asp.net core, .Net 6 & 8), Javascript/Typescript with frameworks (Svelte & React), PHP (WordPress) with custom plugins I coded, and MS-SQL for SQL
- Favorite project: Build and maintain functional Learning Management Software (<https://orientation-plus.org>) coded in Blazor (.Net Core), Typescript, and MS-SQL with Dapper ORM. Facility and/or Healthcare Staff can use GUI UI tools, with animation, to create Orientation courses for nurses.

RESEARCH

Thesis: Classifying Videos Labels from Youtube

Professor: Ram Akella

06/2017 - 12/2019

Tasks/Achievements

- Code available on Github https://github.com/rchavezj/Label_YT_Videos
- Coded in PyTorch and Keras (Tensorflow)
- The goal was to develop classification algorithms to assign video/frame-level labels using the new and improved YT-8M V2 dataset. The algorithm will help consumers find their video labels quicker. This required a combination of Neural nets and LSTM's to perform action recognition.

EDUCATION

University of California, Santa Cruz

BS: Machine Learning Thesis: 2 years of research (mentioned under research)

06/2017 - 12/2019

University of California, Santa Cruz

BS: Computer Engineering

09/2012 - 12/2017

Courses

- Operating System
- Mechatronics (Robotics)
- Advance Programming (C++)
- Machine Learning
- Deep Learning Seminar
- Algorithms and Abstract Data Types

STARTUP PROJECT

The Forest (Svelte-Kit, Typescript Tech Stack)

<https://theforest.church>

09/2023 - Present

Indio, CA

Tasks/Achievements

- Coding one of the most dynamic query search church websites for my congregation.
- Tech stack: Svelte-Kit, PostgreSQL Drizzle ORM, Typescript, MUX Videos, Stripe API.
- Created a separate database to store additional meta data with sermons (Mux Video database) to have an advance filter system.
- Coming soon: Custom made Interactive video transcript. Having the ability to fast forward/rewind to a time stamp of the video based on clicking/taping on the words.
- Coming soon: Developing a content management system (CMS) to allow users, within the congregation to authenticate, alter any changes to the site with no coding experience.
- Coming soon: Headless Blog integrating from Hashnode: GraphQL
- Helped make decisions within the congregation to only spend a less than \$5 per month.
- iOS/Android app coming soon: most likely using Tauri (Rust).

SKILLS (13 YEARS OF PROGRAMMING)

Svelte

Svelte-Kit

Rust

Rust - Actix

Typescript

GraphQL

C/C++

Shadcn

React JS

PyTorch

Python

Github CI/CO Commands

Swift

CERTIFICATES

AWS - Machine Learning Sagemaker (10/2019)

<https://www.coursera.org/account/accomplishments/certificate/K2W5QFUWT53T>

Rust By Building Real Application (01/2021)

<https://www.udemy.com/certificate/UC-fb542426-a68f-4d07-8510-ea1d355b2447/>

Getting started with WebAssembly & Emscripten (01/2020)

<https://www.udemy.com/certificate/UC-JRTX4EJL/>

The Complete JavaScript Course 2020: Build Real Projects! (12/2019)

<https://www.udemy.com/certificate/UC-OBJR5K03/>

Advanced CSS and Sass: Flexbox, Grid, Animations (12/2019)

<https://www.udemy.com/certificate/UC-QLBACHK5/>

The Complete 2020 Flutter Development Bootcamp with Dart (08/2019)

<https://www.udemy.com/certificate/UC-U2LLB9NA/>

Master Computer Vision™ OpenCV4 in Python with Deep Learning (05/2019)

<https://www.udemy.com/certificate/UC-UC7LN86P/>

The Complete Self-Driving Car Course - Applied Deep Learning (01/2019 - 03/2019)

<https://www.udemy.com/certificate/UC-26NP5UXN/>

Practical Deep Learning with PyTorch (04/2019)

<https://www.udemy.com/certificate/UC-M8KE46E9/>

TensorFlow for Deep Learning with Python (04/2018)

<https://www.udemy.com/certificate/UC-22GAJ0QU/>

Ionic 1 by Example: Create Mobile Apps in HTML5 (09/2015)

<https://www.udemy.com/certificate/UC-0HGMC2GN/>

ACHIEVEMENT

Pathway to Success Scholarship for \$10,000 (CVEP Foundation) (05/2012)

\$10,000 - Quoted from CVEP "Pathways to Success is to provide the financial resources and student support services to students who have clear career goals, who have demonstrated leadership or involvement in their community or school, and who have the desire and motivation to succeed."

ORGANIZATIONS

MEP (MESA Engineering Program) Member (08/2013 - 06/2015)

Quoted on MEP Site: <https://mep.soe.ucsc.edu/> --> MEP provides a variety of academic and personal support to encourage the academic success of aspiring engineering students many of whom are first in their family to attend college, enroll in computer science or engineering programs, or from family backgrounds of limited financial resources and less educational opportunities.

SKILLS (13 YEARS OF PROGRAMMING)

Data Structure

CUDA With PyTorch

Keras

Unix + Linux Commands

Distributed GPU

Matlab

OpenCV

PHP

Deploying ML Models (AWS & Flask)

C#

Tensorflow

UML Designs

Java

PosgreSQL

Drizzle ORM Typescript

PAPERSPACE (CLOUD API)

SQL

Javascript

NodeJS

Neon Database

PROJECTS

Book Collection (React and Python): Full Stack Project (03/2014 - 06/2014)

- <https://friendly-shockley-5fd527.netlify.app/>
- Organized a series of books using Django web framework to be hosted on the backend. Used Pythonanywhere to host the API's. Fetched the data using react.

OpenCV Projects (Computer Vision)

- <https://github.com/rchavezj>
- Currently has **341** Stars
- List of OpenCV projects to further increase the computer vision community. Coding in Python & C++(In progress).

LMPUI (ESP Personnel Project) Using React and C# (02/2020 - 07/2020)

- Coded a Nurse Dashboard log system to track they're health info (Care Assist, Clinical Competency, Daily Staffing, Education Records, Facility Training, SmartClock via shifts, and Unit Schedule for a custom calendar made with material ui react)

Monsters_Rolodex React-JS Project (12/2019 - 01/2020)

- https://rchavezj.github.io/monsters_rolodex/

MECHATRONIC FINAL PROJECT | SOFTWARE LEADER (09/2015 - 12/2015)

- <https://www.youtube.com/watch?v=3kdAVGjsG50&t=1s>
- Assemble an autonomous robot in a month (More info on my personal Website under projects).
- Experience with C Programming IDE MPLAB-X, Circuit designs on Signal Conditioning, Solidworks, PCB designs, and Motor controls.

CMPS 142: ML group project: Kaggle Competition (01/2017 - 04/2017)

- https://github.com/rchavezj/Whats_Cooking
- Our team consisted of three: Sean Elliott, Luke Shepherd, and myself. We approached our problem with different learning models, so that each teammate was developing a distinct model for learning on. In particular, we worked on a single layered perceptron; softmax regression algorithm; and a neural network and comated. Click here to view the kaggle competition post.