JOHNPAUL VELA

SOFTWARE DEVELOPER

CONTACT

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https://jp-vela.github.io

LinkedIn

San Juan Capistrano, CA

EDUCATION

- **BS IN COMPUTER SCIENCE**

Concordia University Irvine
- Graduation Dec 2025

LANGUAGES

- English
- Spanish
- Mandarin Chinese

COURSE WORK

- **CSC212** Data Structures and Algorithms
- **CSC316** Intro to Networking
- **CSC318** Object Oriented Programming
- **CSC322** Software Engineering

SKILLS

Programming | Python - Java - C# - C - PHP - JavaScript - Shell Script

Web | HTML - CSS - MySQL - Node.js - TCP/IP - Google Cloud

Frameworks | Bootstrap - Keras - React - LangChain - NumPy - Pandas

Tools | Linux - Visual Studio - VS Code - Git - Arduino - Raspberry Pi

Concepts | Embedded Systems - Data Structures - Operating Systems - Machine Learning - Neural Networks

EXPERIENCE

- **Home Automation – personal project**

A Raspberry Pi and Arduino project to control my lights, window blinds, and security camera from a web app/voice control.

  - Developed using Python3 and NodeJS on Linux
  - Real-time audio sampling and processing
  - Motor and light control for blinds and lamps
  - Live video streaming to web front-end
  - Trained custom CNN for wake word detection using Keras
  - Trained custom LSTM for task classification using Keras
  - Used multithreading to run multiple jobs

- **YouTube Context – personal project**

Using a pre-trained embedding model, a console-based tool to query a YouTube video and return a timestamp for the answer.

  - Developed using Python3, youtube_transcript_api, and the ChromaDB library to access the embedding model.

- **Panora – personal project**

A web-based tool to store and preview research sources as well as keep notes.

  - Developed backend using Node.js
  - Currently using Heroku for hosting
  - Using Puppeteer to screenshot websites and send it to the client via a REST API.
  - Developed front-end using ReactJS and Bootstrap.
  - Transactions handled by Stripe