Enrique Aranda Jr.

Computer Science Undergraduate

I am passionate about developing projects that positively impact my peers and collaborating with others to enhance the college experience for students.

Contact

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Education

UNIVERSITY OF CALIFORNIA, SAN DIEGO
BS, Computer Science
Minor, General Biology
PRESENT-2026

Technical Skills

Languages:
Java, C/C++, C#, Python, SQL, HTML/CSS

Framework:
JUnit, React, Node.js

Developer Tools:
VSCode, Git

Architecture:
ARM, SystemVerilog

Libraries:
NumPy, pandas, Spotify API, Scikit-Learn, Matplotlib, miditoolkit, PyTorch, FluidSynth

Projects

MUSIC GENERATION WITH RNNS
Python, PyTorch, miditoolkit, FluidSynth
May 2025 – June 2025

Worked in a team of 4 to design and implement a symbolic music generation model using Recurrent Neural Networks (RNNs) trained on MIDI datasets. We extracted features such as pitch, duration, and note sequences using miditoolkit, and trained the model to predict tokenized note sequences with a language modeling objective. Used libraries at our disposal such as PyTorch to refine our model and generate MIDI files that we then converted to .wav files using FluidSynth.

MOODY MELODIES
HTML, CSS, React, MongoDB, Spotify API
Sept 2024 – December 2024

Worked in a team of 7 using software development tools we learned in class to create our React web app, Moody Melodies. Students can create an account and fill out a survey to receive a playlist based on their current mood. We achieved this using the Spotify API to implement a recommendation system where a certain emotion is linked to certain parameters that would return an appropriate list of songs.

UCSD CAPES MACHINE LEARNING EXPLORATION
Python, pandas
Jan 2024 - Mar 2024

Worked in a team of 10 using the machine learning methods we learned in class to investigate the relationship between several classroom metrics and their effects on student success. We used deep neural networks to derive data from UCSD's Course and Professor Evaluations database and display a predictive model that would highlight certain patterns that would not normally be found.