

# DIEGO ARTEAGA

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## EDUCATION

### California State University, Northridge

Master of Science in Data Science

Starting Fall 2025

Northridge, CA

### California State University, Northridge

Bachelor of Science in Computer Science; Summa Cum Laude

May 2025

Northridge, CA

#### Relevant Coursework in:

- Data Structures, Algorithm Design & Analysis, Software Engineering, Machine Learning, Data Mining, Database Design, Probability & Statistics, Web Engineering, Networks & Security

## EXPERIENCE

### Video Editor & Analyst

Nov 2021 - Feb 2025

Los Angeles, CA

- Streamlined audio and video production workflows using **Ableton Live**, **Adobe Premiere Pro**, **Adobe After Effects**, and **Photopea**, demonstrating efficiency, adaptability, and technical proficiency in digital production tools
- Analyzed viewer engagement and performance metrics using **Python** and **Pandas**, uncovering trends that led to data-driven optimizations in content strategies, leading to over **8.5 million views** and a **31% increase in retention**
- Performed A/B testing on content formats, identifying key factors that **improved audience engagement by 23%**

### Studio Musician

Nov 2021 - Dec 2024

Los Angeles, CA

- Collaborated with diverse teams in high-pressure studio environments, meeting strict deadlines while enhancing communication, teamwork, and problem-solving skills—directly applicable to agile management practices
- Managed social media accounts and album marketing efforts, **increasing audience engagement by 20%**

## PROJECTS

### Lung Cancer Detection 2D CNN Model | Python, TensorFlow, Keras, OpenCV, Matplotlib

March 2025 - Present

- Processed **over 3,500 CT scan images** from the **LIDC-IDRI** dataset, using **Pydicom** for DICOM management and leveraging **radiologists' XML annotations** for malignancy scores and ROI coordinates to improve model
- Developed comprehensive data visualizations using **Matplotlib**, **Seaborn**, **NumPy**, **SimpleITK**, and **PyVista** to analyze tissue density distributions and generate **multiplanar reconstructions** for enhanced diagnostic clarity
- Applied image preprocessing and feature extraction with **OpenCV**, preparing data for model training using **TensorFlow** and **Keras**, implementing a **multi-view 2D CNN** for a target recall of 85%

### Agricultural IoT and Machine Learning Platform | React, Next.js, Firebase, Node.js, Python

Jan 2025 - Present

- Developing an **IoT-driven agricultural platform** within a team of 12 students via **GitHub** and **Jira**, aimed at helping cocoa bean farmers monitor weather conditions and optimize crop health for improved yields
- Designed a real-time dashboard with **React**, **Next.js**, and **Bootstrap**, visualizing sensor data from **Firebase**, and utilized **Python** and **Postman** to test API endpoints, improving GPS data transmission
- Collaborating with a machine learning sub team working on predictive models for plant sickness and crop growth
- Co-authored a research paper on the platform's application and integration of small-scale IoT technology for agricultural monitoring, submitted to the CSCSU (Computer Science Conference for CSU Undergraduates)

### Spotify Clone | React, Node.js, Express.js, MySQL, Vite.js, Axios, Bootstrap

Feb 2025

- Redesigned my personal full-stack music streaming platform, originally built with **PHP** and **JavaScript**, using **React** and **Bootstrap** for a modern, responsive UI, significantly improving user engagement
- Developed a **Node.js** and **Express.js** backend with **MySQL**, optimizing query performance and API response times
- Implemented a real-time search bar, dynamically filtering songs and reducing search latency by 30%

## SKILLS

**Programming Languages:** Java, JavaScript, Python, SQL (MySQL), HTML/CSS, C++

**Frameworks/Libraries:** React, Node.js, Express.js, Bootstrap, Vite.js, NumPy, Pandas, Matplotlib, scikit-learn, TensorFlow

**Developer Tools:** Git, GitHub, Visual Studio Code, Jira, Jupyter Notebook, Anaconda, NPM, AWS, Docker

**Languages:** English, Spanish, Japanese