

# DIEGO ARTEAGA

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## EDUCATION

### California State University, Northridge

Master of Science in Data Science

Starting August 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 & Performance Analyst

Nov 2021 - March 2025

Los Angeles, CA

- Produced and edited engaging **YouTube** and **TikTok** content for clients, optimizing audio and video workflows using **Ableton Live**, **Adobe Premiere Pro**, **After Effects**, and **Photoshop**, improving overall production efficiency
- Analyzed viewer engagement and performance metrics using **Python** and **Pandas**, uncovering trends that led to data-driven optimizations in content strategies, leading to over **11 million views** and a **15% boost in revenue**
- 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

### Healthcare IoT Device Anomaly Detection | *Python, Scikit-learn, Pandas, Matplotlib, SHAP*

- Built an end-to-end anomaly detection pipeline for wearable health devices using **Isolation Forest** on features engineered from raw **PPG, accelerometer, and temperature data**, improving faulty signal detection by **20%**
- Extracted 20+ statistical, frequency, and correlation-based features from segmented biosignals; used **SHAP** for model interpretability and identified key drivers of hardware faults like motion artifacts and loose sensors.

### Lung Cancer Detection | *Python, Jupyter Notebook, TensorFlow, Keras, OpenCV, NumPy*

- Trained a **CNN** using **TensorFlow** on the **LIDC-IDRI CT scan dataset**, leveraging **radiologists' annotations** for malignancy scores and ROI coordinates to extract nodule regions, achieving **94% recall** for lung nodule detection
- Applied **data augmentation** techniques and preprocessed over **10,000 DICOM images** with **OpenCV** and **NumPy**, improving model performance and generalization

### Agricultural IoT and Machine Learning Platform | *GitHub, Jira, React, Node.js, Python, Postman, Firebase*

- Designed a real-time dashboard using **React** and **Bootstrap** to visualize environmental sensor data from **Firebase** within a team of 12 students via **GitHub** and **Jira**, supporting Colombian farmers in improving crop yield
- Tested **Python backend APIs** with **Postman** and integrated them with the **React frontend** for real-time data flow
- Developed machine learning algorithms with team to correlate them with plant sickness and crop growth
- **Won 1st Place** at **CSUNposium 2025** for presenting a smart farming project and delivering a self-written speech

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

- Built a **full-stack** music streaming app with **React**, **Node.js**, and **MySQL**, integrating the **Last.fm API** to deliver real-time artist and album metadata via optimized **RESTful APIs**
- Redesigned the UI using **React**, **Vite**, and **Bootstrap** for a modern, responsive experience, adding features like dynamic search, liked songs playlist, and editable user profiles

## 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