DIEGO ARTEAGA

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EDUCATION

California State University, Northridge   Starting August 2025
Master of Science in Data Science   *Northridge, CA*

California State University, Northridge   May 2025
Bachelor of Science in Computer Science; Summa Cum Laude   *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*
- Redesigned my personal full-stack music platform project, 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

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