DIEGO ARTEAGA

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EDUCATION

California State University, Northridge   May 2027
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 for Data Science, Web Engineering, Networks & Security

EXPERIENCE

Machine Learning Research Intern   June 2025 - August 2025
California State University, Northridge   *Northridge, CA*
- Led model development, data preprocessing, and codebase implementation in a team of 5 for an IoMT intrusion detection system, while co-authoring a research paper on deep learning techniques for medical network security
- Presented key insights from a literature review on deep learning-based intrusion detection for IoMT and IoT networks to guide team discussions and meetings and align model architecture decisions across the group

Video Editor & Digital Content Strategist   Nov 2021 - August 2025
Arrowstotle, LLC   *Los Angeles, CA*
- Produced and edited **YouTube**, **TikTok**, & **Instagram** content for clients since 2024, organizing content timeline with **Excel** and optimizing audio/video workflows using **Ableton Live, Adobe Premiere Pro, After Effects,** & **Photoshop**
- Led social media content strategy using YouTube Studio analytics since 2021 to guide video formats, post timing, & thumbnail design; A/B testing and retention analysis drove **15M+ views** and a **16% boost** in engagement & revenue

Studio Musician   Nov 2021 - Dec 2024
Freelance   *Southern California*
- Collaborated with diverse teams in studios and venues across SoCal, meeting strict deadlines while working with members on arrangements, recording sessions, and marketing strategy for album and show promotion

PROJECTS

IoMT Anomaly Detection System | *Python, PyTorch, Scikit-learn, Google Colab, Deep Learning*
- Designed a novel anomaly detection system for IoMT networks combining **GraphSAGE (GNN)** and **Performer Transformer** models to detect cyberattacks in medical networks via spatio-temporal graph embeddings
- Preprocessed and integrated four public IoMT datasets to improve model generalization across diverse attack scenarios; achieved superior performance over state-of-the-art models on key evaluation metrics

Lung Cancer Detection | *Python, Jupyter Notebook, TensorFlow, Keras, OpenCV, NumPy*
- Developed a tailored **CNN** using **TensorFlow** on the **LIDC-IDRI CT scan dataset**, leveraging **radiologists' XML annotations** to extract malignancy scores and nodule regions, achieving **94% recall** for lung nodule detection
- Preprocessed **10,000+ DICOM images** & applied **data augmentation** techniques to enhance model 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**, integrating and testing **Python backend APIs**
- Collaborated on machine learning models to correlate environmental data with plant sickness and crop growth
- **Won 1st Place** at **CSUNposium 2025** for presenting a smart farming project and delivering a self-written speech

SKILLS

Programming Languages: Java, Python, JavaScript, SQL (MySQL, Google BigQuery), HTML/CSS, C++
Frameworks/Libraries: React, Node.js, Express.js, Bootstrap, Vite.js, NumPy, Pandas, Matplotlib, Scikit-learn, TensorFlow
Developer Tools: Git, GitHub, VS Code, Jira, Jupyter Notebook, Google Colab, Anaconda, NPM, AWS, Tableau
Office Tools: Google Workspace, Microsoft Office, Spreadsheets (Microsoft Excel, Google Sheets) Overleaf (LaTeX)
Certifications: Google Data Analytics Professional Certificate (Coursera, 2025)
Languages: English, Spanish, Japanese