Alexis Anzaldo

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SKILLS

- **Programming**: Python (TensorFlow, PyTorch, Keras, Scikit-Learn, OpenCV, Pandas, NumPy, Matplotlib, Seaborn), SQL
- **AI/ML Techniques & Models**: CNN, YOLO, Transfer Learning, Reinforcement Learning, Explainable AI (GRAD-CAM), Data Augmentation, Outlier Detection, Regression, Large Language Models (GPT, Claude — fine-tuning, embeddings, prompt engineering)
- **Tools & Platforms:** Dagster, FastAPI, MS Project, Git, Power BI, Matlab, Labview
- **Languages:** Spanish (Native), English (B2)

EXPERIENCE

Supervisor 2 / Data Scientist – Skyworks Solutions, Inc., Mexicali, Mexico Jun. 2023 - Current

- Lead AI and computer vision projects to optimize production and inspection workflows, integrating deep learning models into real-world systems.
- Coordinate project resources, engage stakeholders, and communicate with cross-functional teams to ensure timely delivery of AI solutions.
- Develop, deploy, and maintain end-to-end AI pipelines using Dagster, ensuring efficient orchestration and data workflow management.
- Design and implement Deep Learning models, achieving measurable improvements in efficiency and defect detection.
- Create PoCs and prototypes for AI initiatives, enabling cross-functional adoption of innovative technologies.
- Collaborate with engineering and operations teams to align AI solutions with strategic business objectives.

PROJECTS

Deep Reinforcement Learning for resource allocation in wireless networks

- Accelerated DQN training by 77% and improved network performance by 24.7% using transfer learning strategies.
- Conceptualized and authored 3 published journal articles in top Q1/Q2 computer science journals.
- Simulated and validated models using Python and PyTorch.

Recognition of Eye Diseases (CNN)

- Achieved 89.2% accuracy on the ODIR-5K dataset.
- Led data preprocessing, augmentation, and class balancing to improve model performance.

Explainable AI (XAI) for beer brand classification

- Fine-tuned VGG16 with additional layers and implemented GRAD-CAM, achieving 91.6% accuracy.
- Conducted full data preprocessing, augmentation, and model training using Keras and Scikit-Learn.

San Diego home price prediction

- Regression model with 83.7% accuracy; developed full ETL and deployed via Flask.

EDUCATION

Ph. D. in Science and Engineering, UABC – Mexicali, Baja California, México 2019-2023
M.S. in Science and Engineering, UABC – Mexicali, Baja California, México 2017-2019
Diploma in Project Management, CETYS Universidad – Mexicali, Baja California, México. 2024-2025

CERTIFICATIONS

- **LLM Engineering: Master AI, Large Language Models & Agents,** Udemy, Online. In Progress
- **TensorFlow: Advanced Techniques Specialization**, DeepLearning.AI, Online. Aug. 2024
- **IBM AI Engineering**, IBM, Online. Sep. 2023
- **Practical Data Science on the AWS Cloud Specialization**, Amazon Web Services (AWS), Online. May 2023
- **Google Data Analytics Professional Certificate**, Google, Online. May 2023

PUBLICATIONS & CONFERENCES

- Accelerated Resource Allocation Based on Experience Retention for B5G Networks, *Journal of Network and Computer Applications*, https://doi.org/10.1016/j.jnca.2023.103593
- Experience Replay-based Power Control for Sum-rate Maximization in Multi-cell Networks, *IEEE Wireless Communications Letters,* https://doi.org/10.1109/LWC.2022.3202904
- Buffer Transference Strategy for Power Control in B5G-Ultra-dense Wireless Cellular Networks, *Wireless Networks*, https://doi.org/10.1007/s11276-022-03087-6
- Presentations: IEEE MeditCom 2022, LATINCOM 2021, Vision + IA Seminario industrIA 2024