Gregory Quach

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Education

University of California San Diego — La Jolla, CA
*B.S. in Data Science (GPA: **3.77**/4.0) AI/ML specialization. Minor in Cognitive Science* — *Sep 2021 – Mar 2025*

Work Experience

AI Data Specialist — Remote
Handshake AI — *Dec 2025 – Present*

- Curated high-fidelity multimodal datasets for LLMs, generative models, and agents focusing on temporal consistency in video and spatial accuracy in image generation to improve model reasoning capabilities.
- Developed and refined complex annotation taxonomies for RLHF (Reinforcement Learning from Human Feedback), ensuring high-quality ground truth data for safety alignment and model fine-tuning.
- Collaborated on iterative data audits to identify and mitigate bias in training sets, directly enhancing the model's ability to generalize across diverse edge-case scenarios and complex user prompts.

Machine Learning Engineer Mentee — San Diego, CA
San Diego Gas & Electric — *Sept 2024 – Mar 2025*

- Presented the working prototype to SDG&E stakeholders, influencing internal discussions around AI integration and paving the way for future adoption into the company's asset management workflows.
- Developed a computer vision model (YOLO) to automatically detect obstructions on powerlines, streamlining manual processes and reducing human error in critical infrastructure monitoring.
- Working in a team with SDG&E and UCSD's DSC Capstone members, I served as the lead contributor to align AI solutions with real-world utility needs.

Data Analyst and Consultant — remote
One Community Global — *July 2023 – Oct 2023*

- Conducted thorough data analysis and aggregation to formulate informed business decisions, utilizing spreadsheets for various visualizations to promote sustainable initiatives.

Research Experience

Scripps Institute of Oceanography — La Jolla, CA
Undergraduate Research Assistant — *Oct 2024 – Apr 2025*

- Contributed data-driven visualizations that support international environmental policy discussions, including efforts to inform and influence sustainability frameworks at the **United Nations**.
- Utilized ArcGIS to process and visualize geospatial data, creating the first spatially explicit map to show how natural resources are valued, promoting a balanced view that includes both extractive and non-extractive contributions to national development.

Salk Institute — La Jolla, CA
Undergraduate Research Assistant — *July 2024 – Mar 2025*

- Working as a team, I created open-source materials in SLEAP and SLEAP-NN to allow for widely available animal pose estimation resources.
- Aided in the conversion of the SLEAP-NN repository from Tensorflow to Pytorch, resulting in faster, more flexible use across all operating systems.

Certifications

Hugging Face
AI Agents

- Built custom AI agents using modern frameworks and tools.
- LlamaIndex, LangGraph, and smolagents

Google
Data Analytics

- Applied data preparation, analysis, and visualization techniques for decision-making.
- Spreadsheets, SQL, Tableau, and R.

Projects

Wavewatch
AI, fullstack

- Used Gemini-2.0-flash to analyze and rate surf conditions, integrating live oceanic data pulled via NOAA and Stormglass into a fullstack application built with a MERN framework.
- Provides relevant surf conditions for any beach and uses AI to analyze the goodness of the conditions specific to each beach.

League of Legends Classifier
Machine Learning

- Developed an ML model to predict players' positions based on post-game data.
- Utilized column transformers, pipeline, grid searcher, decision tree classifier.
- Achieved 95% classification accuracy, surpassing 52.1% baseline.

Surfboard Notifier
LLM, script

- Developed an automated monitoring system using Gemini-2.0-flash to categorize and filter Craigslist surfboard listings, sending only relevant notifications via email after searching criteria are met.

Technical Skills

Programming & Data Tools: Python, SQL, R, Pandas, Excel, scikit-learn, Dask, Spark **Visualizations:** Tableau, Seaborn, ArcGIS, Matplotlib, gradio, streamlit, D3 **Machine Learning & AI:** Computer Vision, Predictive Modeling, LLMs (LangGraph, LlamaIndex), Prompt Engineering, Recommender Systems **Cloud & DevOps:** AWS (EC2, S3), Docker, GitHub **Web:** HTML, JavaScript, Figma