

Peter Shamoun

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EDUCATION

University of California, San Diego

San Diego, CA

Bachelor of Science in Data Science

Expected: June 2027

Coursework: Data Structures & Algorithms, Machine Learning, NLP, Database Management, Cloud Computing

EXPERIENCE

Data Science Intern

June 2025 – Feb 2026

LPL Financial

San Diego, CA

- Developed NLP-based keyword extraction and sentiment analysis pipeline on advisor feedback from business findings reports, identifying organizational trends and actionable insights across the company.
- Built production-deployed bulk closure detection system using Pandas/NumPy to identify suspicious alert resolution patterns through statistical analysis, preventing revenue leakage and enabling compliance audits.

Undergraduate AI Researcher

May 2025 – Present

HDSI, Data Smith Lab

San Diego, CA

- Leading the research of a novel AI safety technique using task vector algebra to strategically fine-tune large language models, precisely manipulating model behavior to mitigate harmful outputs from jailbreak attempts.

Data Science Intern

Sep. 2024 – May 2025

Data Science Alliance

San Diego, CA

- Developed geospatial optimization models in Python to identify optimal food bank placements, creating automated data pipelines with the US Census/ACS API, and brought data driven recommendations to the city of San Diego.
- Built and deployed an interactive web dashboard with ArcGIS API to visualize model results, enabling stakeholders to perform real-time scenario analysis via interactive sliders.

Data Science Intern

Jun. 2024 - Sep. 2024

Nexon America

Los Angeles, CA

- Engineered a data pipeline in Snowflake to process large-scale, longitudinal player data; trained and deployed clustering models using AWS SageMaker to predict Lifetime Value and inform player engagement strategy.
- Developed a sentiment analysis tool by fine-tuning a foundation model accessed via AWS Bedrock; implemented a RAG pipeline to summarize unstructured community feedback, delivering actionable insights to product teams.

Software Engineering Intern

Jan. 2024 - Jun. 2024

STEMz Learning

San Diego, CA

- Refactored collaborative filtering recommendation system using TensorFlow and migrated backend from Express.js to FastAPI with PostgreSQL, reducing API response time and improving suggestion accuracy.
- Implemented secure OAuth 2.0 authentication flow with Firebase Auth with multi-factor authentication and role-based access control to enhance platform security.

Research Assistant

Sep. 2023 - Jan. 2024

San Diego Supercomputer Center

San Diego, CA

- Developed and optimized a TensorFlow-based sequential neural network to compress high-dimensional plasma physics data, reducing matrix storage requirements and improving computational efficiency.

PROJECTS

Cheat Sheet AI | *Python, NLP, Flask, Docker, Oracle Cloud*

Jan. 2025

- Developed an AI-powered study tool using fine-tuned LLMs and prompt engineering to generate personalized cheat sheets, serving over **1400+** users
- Designed and deployed a scalable, containerized Flask backend using Docker on Oracle Cloud to ensure high availability and serve production traffic.

Graph Theory Visualizer | *React.js, D3.js, HTML/CSS*

Dec. 2024

- Developed an interactive D3.js web app to visualize graph algorithms (BFS, DFS, Dijkstra's); officially adopted as an instructional tool in UCSD's DSC40B course.

TECHNICAL SKILLS

Languages: Python, SQL, Java, JavaScript, R, MATLAB

Libraries/Frameworks: TensorFlow, Keras, Scikit-learn, Pandas, NumPy, Flask, React, D3.js, Matplotlib

Tools & Cloud: Docker, AWS (SageMaker, Redshift, Bedrock), Oracle Cloud, Snowflake, Tableau, Git/GitHub