Peter Shamoun
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EDUCATION

University of California, San Diego San Diego, CA

Bachelor of Science in Data Science *Expected: June 2026*

Relevant Coursework:

    Data Structures and Algorithms, Programming and Data Structures, Practice and Application of Data Science, Statistical Modeling, Theoretical Foundations of Data Science

EXPERIENCE

Undergraduate Researcher Sep. 2024 – Present

Data Science Alliance *San Diego, CA*

- Leading a project to determine optimal food bank locations throughout San Diego using QGIS, Python, SQL, and a classifier model, providing policymakers with data-driven insights to inform decisions on food bank placement.

Data Analyst Intern June 2024 - Sep. 2024

Nexon America *Los Angeles, CA*

- Developed complex SQL queries across **10+** tables to extract key metrics on payments, interactions, and login behaviors.
- Delivered multiple Tableau dashboards to the marketing team to serve as an internal tool enabling data-driven decisions on marketing spend based on user value.
- Presented the tool to both technical and non-technical teams, with the work being featured in a company-wide newsletter.

Research Assistant Jan. 2024 - June 2024

San Diego SuperComputer Center *San Diego, CA*

- Created a comprehensive database with SQLite, housing **150,000** matrices for extensive research.
- Designed and implemented a high-accuracy neural network with Keras TensorFlow in order to predict the error caused by matrix compression with up to **95%** accuracy.
- Visualized findings using Matplotlib to show the model's ability to predict truncation errors within matrices.

Software Engineering Intern Feb. 2024 - Apr. 2024

STEMz Learning *San Diego, CA*

- Refactored a recommendation system, providing users with curated suggestions based on their browsing history. Increasing accuracy by **60%**
- Implemented a back-end framework that reduced website response time by **30%** handling over **1000** HTTP requests per day.
- Implemented Firebase authentication to enhance user authentication speed by **25%** and integrated MFA in React.

PROJECTS

AI-Powered Supermarket Deal Finder | *Python, ChatGPT API, Selenium, Streamlit* Aug. 2024 – Present

- Developed an automated web scraper using Selenium, BeautifulSoup, and bash scripting to capture supermarket ad images and extract item prices and names using Meta's Segment Anything model and ChatGPT API
- Created a pandas-based data pipeline to store and organize item names, prices, and store information, enabling efficient analysis and comparison of supermarket deals
- Designed a user-friendly Streamlit frontend where users can search for products and view the best supermarket deals, resulting in **100+** active users and **500+** requests per day

Ensemble CNN Image Classifier | *Python, TensorFlow, PIL, React* Apr. 2024

- Developed and trained an ensemble of Convolutional Neural Networks to achieve **85%** accuracy in image classification tasks
- Implemented image preprocessing pipelines in PIL, including resizing, normalization, and augmentation techniques
- Hosted the model on a React.js frontend, enabling users to upload images and view classification results in real-time

TECHNICAL SKILLS

Languages: Python, SQL, Java, R, MATLAB, JavaScript
Certifications: Machine Learning Specialization by DeepLearning.AI and Stanford University
Tools: Snowflake, Amazon AWS, Microsoft Office, Tableau, Github
Libraries: Pandas, BeautifulSoup, TensorFlow, Plotly, scikit-learn, PIL, Streamlit, Selenium