NADINE MARCUS

(661) 289 0993 | nadinemarcus2002@gmail.com | github.com/nadinemarcus | linkedin.com/in/nadine-marcus

EDUCATION

University of California, San Diego, *M.S. in **Data Science*** GPA: 3.90 June 2026

University of California, San Diego, *B.S. in **Mathematics- Probability/Statistics**, Minor in **Data Science*** GPA: 3.56 June 2024

William S. Hart High School, Newhall, CA, *Top 0.005% of graduating class* GPA: 4.73 June 2020

PROFESSIONAL EXPERIENCE

Palomar Specialty Insurance, *Claims Data Analyst* | La Jolla, CA January 2025 – Present

- Designed and delivered executive-level Power BI dashboards—including a full in-house claims reporting suite—that streamlined analytics, reduced external dependencies, and enabled data-driven decision-making.
- Delivered a monthly claims deck, translating analytics into clear insights that drive strategic discussions with leadership.
- Acted as a cross-functional data partner—bridging Claims and Data teams via external integrations and enhancements to the premium reporting database.
- Expanded role scope by supporting ETL-like workflows and database configurations using SQL—demonstrating initiative and technical versatility.

San Diego County Taxpayers' Association, *Data Science Intern* | Point Loma, CA May 2023 - November 2023

- Led the homelessness data project, creating the inaugural dataset for homelessness in the U.S., mapping fiscal contributions across government levels in San Diego County to assess funding effectiveness.
- Engineered a highly accurate XML web-scraping parser for extracting 990 tax form data from ProPublica, achieving 99.98% precision.
- Leveraged ChatGPT's finetuning capabilities with a k-fold cross-validation approach to automate data extraction from local and county contracts, enhancing data processing efficiency.
- Collaborated on developing a comprehensive workflow for contract analysis, mapping San Diego County's homelessness spending, aiding in strategic financial oversight.

Rho Impact, *Data Science Intern* | Remote (La Jolla, CA) June 2022 - September 2022

- Engineered data wrangling processes and dashboards to optimize growth tracking and streamlined organizational processes using automated file deduplication with Google Sheets API and storage in JSON format, improving data integrity.

RELEVANT COURSES

Mathematics	Computational Statistics, Probability and Statistics, Stochastic Processes, Computational Stochastics, Mathematical Modeling, Applied Linear Algebra, Mathematical Analysis, Mathematical Reasoning, Multivariable Calculus, Vector Calculus, Differential Equations, Cryptography
Data Science	Algorithms and Data Structures, Practice and Application of Data Science, Introduction to Artificial Intelligence, Probabilistic Modeling and Machine Learning, Theoretical Foundations of Data Science
Languages	Python, Java, R, SQL, JSON, Matlab, Git, Bash, LaTeX, C/C++, Pandas, Seaborn, Scikit-Learn, Numpy

PROJECTS

Power Outages Data Analysis | Practice and Application of Data Science March 2024

- Analyzed U.S. power outage data to identify drivers of outage duration and regional risk factors.
- Built and optimized ML models with feature engineering and hyperparameter tuning; evaluated fairness across groups to ensure unbiased predictions.
- Utilized Python, Pandas, Scikit-learn, and Plotly. The project's analysis is culminated on a dedicated website.

Blackjack Card-Counting Simulator GUI | Mathematical Modeling March 2024

- Conceptualized and developed an interactive GUI-based simulator to test card-counting strategies, leveraging Monte Carlo methods and ML models for performance optimization.
- Created a dynamic educational tool to demonstrate risk management and algorithmic decision-making principles.using a previous Monte Carlo simulator to model and analyze the efficacy of various blackjack card-counting strategies, employing Python, Tkinter, Pandas, and Matplotlib.

LEADERSHIP

Head Coach | American Youth Soccer Association, San Diego, CA August 2025 - Present

Executive President | Associated Student Body, Newhall, CA 2019 – 2020

- Led 70 students, creating a new system within ASB to increase productivity, formed alliances with local businesses, and utilized digital marketing to boost event attendance by 20%, achieving record participation rates.
- Hosted meetings with board officials to address funding and operational logistics.

Head of Philanthropy/Head of Publicity | Associated Student Body 2017 - 2019

- Drove a 30% fundraising increase by introducing new creative approaches to fundraising and participation and hosted 700+ families at annual events, fostering significant community engagement.

Sophomore Class President | Associated Student Body 2017 - 2018

- Directed Winter Formal and Prom, achieving a significant increase in attendance through student engagement strategies.