Daniel Birman

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EDUCATION

University of California, San Diego Expected Graduation: March 2026
B.S. in Data Science GPA: 3.6

Relevant Coursework: Recommender Systems and Web Mining, Exploratory Data Analysis and Inference, Introduction to Data Management, The Practice and Application of Data Science, Theoretical Foundations of Data Science I & II, Data Structures and Algorithms for Data Science, Programming and Data Structures for Data Science, Statistical Methods, Principles of Data Science, Data Ethics

EXPERIENCE

Deloitte April - June 2024
Data Science Mentorship Program
Tools: Python (pandas, scikit-learn, numpy), Google Slides, Tableau

- Led a team in analyzing a dataset of 1,000,000+ rows, developing a Random Forest Regressor model to predict customer purchase timing.
- Enhanced model accuracy by 57%, providing insights that improved customer engagement.
- Presented findings and methodologies to Deloitte practitioners and UCSD Data Science students using Google Slides and Tableau.
- Engaged in discussions about consulting, data science, and career opportunities with Deloitte professionals over a 6-month period.

University of Washington, School of Oceanography August 2024
Data Science in Oceanography Undergraduate Program
Tools: Python (pandas, xarray, matplotlib, plotly, cartopy), tensorflow, Google Slides

- Directed a team in developing a neural network model to forecast significant wave heights from wind speed data, achieving 74% accuracy and illustrating AI's application in oceanography.
- Utilized data science methods on diverse oceanographic datasets, including data from field research, buoys, satellites, and autonomous underwater vehicles, to gain hands-on research experience.
- Investigated climate phenomena such as El Niño and ocean circulation by analyzing multi-decadal datasets, identifying trends in ocean temperature, salinity, and wave heights.
- Presented findings and insights into the role of oceans in global climate regulation using Python tools and Google Slides.

PROJECTS

Exploring the Relationship Between Food Recipe Complexity and Healthiness May - June 2023
Tools: Python (pandas, scikit-learn, numpy, plotly), HTML, GitHub

- Executed a comprehensive data science project to explore the relationship between recipe complexity and healthiness, including data cleaning, exploration, hypothesis testing, and model development.
- Developed a baseline model using a Random Forest Regressor, improving the final model's RMSE by 33% and accuracy by 250%.
- Built a website to present the complete project lifecycle and findings, showcasing the work through HTML and GitHub.
- Enhanced understanding of the relationship between recipe attributes and health metrics through effective data analysis and visualization using Python tools.

SKILLS

- Machine Learning Modeling, Statistical Modeling, Programming, Data Visualization, Time Series Analysis
- *Programming Languages*: Python, Java, SQL
- *Data Analysis & Visualization*: NumPy, pandas, scikit-learn, seaborn, Matplotlib, xarray, tensorflow
- *Tools & Technologies*: HTML, CSS, Git, GitHub, MATLAB, Microsoft Office (e.g., Outlook, Word, Excel, PowerPoint), Jupyter Notebook, APIs

LEADERSHIP EXPERIENCE

Data Science Student Society (DS3), UCSD
Vice President External Subcommittee September 2023 - June 2024

- Coordinated a career fair for over 300 students and 20+ leading companies in data science, technology, and finance, securing sponsorships and strengthening industry partnerships.
- Fostered relationships with campus entities to plan and execute events, including a "Last Lecture" series with prominent professors sharing insights on careers in data science.
- Enhanced campus engagement and industry connections through effective event management and strategic collaboration.