

Daniel Birman

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EDUCATION

University of California, San Diego

B.S. in Data Science

Expected Graduation March 2026

GPA: 3.6

Relevant Coursework: 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, A Sports Analytics Approach to the Social Sciences, Data Ethics

EXPERIENCE

Deloitte

April - June 2024

Data Science Mentorship Program

- Worked alongside a team of data science students to analyze a dataset, perform exploratory data analysis, and create a model to predict an outcome
- Given a data set of 1,000,000 rows of customer online purchase history, created a Random Forest Regressor model that could accurately predict within a window when a given customer would purchase their next item
- Presented our findings in front of Deloitte practitioners and UCSD Data Science students, sharing our process of cleaning the data, creating a model, and final outcomes from the dataset
- Fine tuned and improved the final model by 57% which would give the company the ability to leverage insights to implement data-driven strategies that will enhance customer engagement, maximize profitability, and streamline operations

University of Washington, School of Oceanography

August 2024

Data Science in Oceanography Undergraduate Program

- Participated in the "Data Science in Oceanography" summer program at the University of Washington, engaging in contemporary data-driven research in oceanography
- Collaborated with faculty and graduate student mentors on oceanographic data analysis projects, utilizing data science techniques such as time series analysis and machine learning
- Attended lectures on various oceanography fields (physical, biological, chemical, marine geology, and geophysics) and developed skills in scientific writing and presentation

PROJECTS

[Exploring the Relationship Between Food Recipe Complexity and Healthiness](#)

May - June 2023

- Front to end data science project that includes data cleaning, data exploration and analysis, hypothesis testing, creating a baseline model, and then improving on that model for a final model
- Singlehandedly created the baseline and final model which utilized a Random Forest Regressor
- Improved final model's RMSE by 33% and the model accuracy by 250%
- Created a website to showcase the entire project lifecycle, showcased through the link above

SKILLS

- Machine Learning Modeling, Statistical Modeling, Programming, Data Visualization
- *Programming Languages:* Python, Java, MATLAB
- *Tools:* HTML, Git, Github, Power point, Excel, Jupyter Notebook, Web Scraping
- *Packages/Libraries:* NumPy, pandas, scikit-learn, seaborn, Matplotlib

LEADERSHIP EXPERIENCE

Data Science Student Society (DS3), UCSD

Vice President External Subcommittee

September 2023 - Present

- Organized a career fair drawing over 300 students and hosting 20+ leading companies in data science, technology, and finance for campus engagement
- Engaged in strategic partnership efforts, securing sponsorships and cultivating industry ties to bolster support
- Cultivated robust affiliations with campus entities, nurturing collaborations for event coordination and execution
- Orchestrated a Last Lecture series where esteemed professors shared their data science journeys and career