Moniriddh Bunyay

moniriddhbunyay@gmail.com I (951) 481-7136 | linkedin.com/in/moniriddhbunyay

Education

University of California, San Diego, La Jolla, California

September 2024 - Present

Major: Data Science (GPA: 3.62)

Relevant Coursework: Data Science Application, Data Science Theoretical Foundations, Java Data Structures and Algorithms, Python Data Structures and Algorithms, Mathematical Probability

Santa Monica College, Santa Monica, California

August 2022 - June 2024

Major: Data Science

Relevant Coursework: Multivariable Calculus, Python, Elementary Statistics, Linear Algebra, Ordinary Differential Equations

Activities: Student Ambassador, Associated Students (AS), Scholars Program, STEM Program

Experience

Scientific Research Intern, SURE@UCLA

June 2024 - August 2024

Amazon, University of California Los Angeles

- Developed and implemented data pipelines in Python and MATLAB to simulate fluid dynamics behaviors from Navier-Stokes equations
- Validated simulations of fluid behavior through real-world experimentation and image analysis
- Conducted data analysis and visualization to compare experimental vs. simulated fluid dynamics behaviors
- Designed and validated computational models that improved accuracy in fluid behavior simulations, leading to an estimated 10% efficiency improvement in manufacturing

Inter-Club Council Chair

August 2023 - July 2024

Associated Students (A.S.), Santa Monica College

- Reinstated multiple club events that had been shut down since COVID-19 pandemic (Club Awareness, Club Row, and ICC Socials), with a budget of \$2,000 to \$10,000 and 300-600 attendees per event
- Increased number of actively participating clubs by ~33% from the previous academic year (from 60 to 80 clubs), based on club representatives who were present during Inter-Club Council meetings
- Applied data-driven risk-management strategies to oversee a \$2 million student budget

Personal Programming Projects

Student Facilities Occupancy Website

November 2024 - Present

UC San Diego, La Jolla, California

- Built a web platform to track real-time occupancy of student facilities (e.g., game rooms, community kitchens, study rooms) using motion sensors, AWS DynamoDB, and S3.
- Gained UCSD faculty approval after presenting the system's design with a focus on student data privacy
- Helped increase facility usage by 10%–16%, particularly in entertainment spaces like game and TV rooms

Sentiment analysis on Non-Political News Articles

October 2024 - Present

UC San Diego, La Jolla, California

- Developed an end-to-end machine learning pipeline using Deepseek's AI to detect political bias in non-political news, with backend processing via SQL-based article filtering.
- Analyzed 5000+ articles and categorized them on a -1 to 1 scale (extremely conservative to extremely liberal)
- Identified bias patterns in certain news outlets, even when covering politically irrelevant topics, while also flagging sources with minimal detectable bias.

Technical Skills

Programming: Python, SQL, C++, Java, Javascript, Assembly, MATLAB, AWS Lambda

Data Science & ML: Pandas, Numpy, AWS DynamoDB, AWS S3, Scikit-learn, TensorFlow, SQL Query Optimization

Data Visualization: Matplotlib, Tableau