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Daniel Milton

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EDUCATION

University of California, San Diego **December 2022**
Bachelor of Science: Machine Learning + Minor in Data Science *San Diego, CA*

- **Programming Coursework:** AI Algorithms, Data Structures, OOP, Web Mining/Recommender Systems
- **ML/DS Coursework:** Advanced Data Science, Supervised/Unsupervised ML, Database Management
- **Math Coursework:** Data Analysis in R, Vector Calculus, Linear Algebra, Statistical Methods

WORK EXPERIENCE

Qualcomm **June 2022 – Sep. 2022**
Software Engineer Intern *San Diego, CA*

- Learned how to work with UE5 Artificial Intelligence features to create functional NPC characters
- Created from scratch an interactable bunny NPC character with dialogue tree, several different animations, object highlighting abilities, random movements within bounds, and other functionalities
- Leveraged Knowledge in Unreal Engine 5 Game Engine, UE5 Blueprints, C++, Git, and Blender

Qualcomm | Arthur C. Clarke Center **Jan. 2022 – April 2022**
Software Engineer Intern *San Diego, CA*

- Became adept at using OpenCV and used several computer vision techniques to scan underwater terrains
- Used a combination of gaussian blurs, changing of color spaces, thresholding, edge detection, and more
- Condensed this into a program that inputs an image and outputs a feature detected top plan
- Leveraged Knowledge in Python, OpenCV, Matplotlib, Git, Jupyter Notebooks, and ImageJ

UCSD Stem Cell Program at Sanford Consortium **Jan. 2020 – Dec. 2022**
Student Web Developer *San Diego, CA*

- Design, maintain, and update stemcellprogram.ucsd.edu
- Leveraged Knowledge in HTML, CSS, JavaScript, and Photoshop

PROJECTS

Personal Website: www.dlmilton.com (for additional information and projects)

Analysis of Politician Trading Activity and Predicting Party Affiliation from Stock Trades
- Created a unique dataset by merging data from CSV files and web-scraped data into one dataset
- Performed a hypothesis test and found statistically significant results between Republican/Democrat Trades
- Built new features from data and used K-Nearest Neighbors Classifier to achieve an accuracy of 80.36%
- Utilized: Python, Pandas, Seaborn, Scikit-learn, Regex, Web Scraping, Data Cleaning/Modeling

Ratings of Amazon Reviews Prediction
- Cleaned data and performed exploratory data analysis to gain important insights from dataset
- Found best results using TF-IDF vectorizer and a logistic regression model resulting in a F1-score of 0.6501
- Utilized: Python, NLTK, Pandas, Matplotlib, Scikit-learn, Data Cleaning/Modeling, Git

Walmart Trip Type Classification
- Cleaned data and explored ML classification algorithms to classify a trip to Walmart among 38 categories
- Achieved an accuracy of 58.9% from Random Forest Classifier that was optimized with GridSearchCV
- Utilized: Python, Pandas, Matplotlib, Scikit-learn, Data Cleaning/Modeling, Git, Keras

SKILLS

Software: *(proficient):* Python, SQL/DBMS, Java, HTML/CSS, Git, Pandas *(familiar):* Swift, C, AWS, R, JavaScript