# Ansh Mujral

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### **EDUCATION**

## University of California, San Diego

Fall 2022 - Present (Expected: March 2025)

B.S. Data Science GPA: 3.81/4

Relevant Coursework: Data Structures and Algorithms for Data Science, Theoretical Foundations of Data Science, Introduction to Data Management, Systems for Scalable Analytics, Introduction to Data Visualization, Probabilistic Modeling and Machine Learning, Representation Learning, Linear Algebra, Calculus and Analytic Geometry, Exploratory Data Analysis for Inference

## **SKILLS**

Programming Languages: Python, Java, SQL, JavaScript, R | Data Technologies: Apache Spark, Pandas, Scikit-Learn, NumPy, Hadoop, D3, MapReduce | Tools: Git, AWS, MATLAB | Techniques: A/B Testing, Data Analytics/Modeling, ETL Processes, NLP, Supervised Learning, Relational Algebra

## PROFESSIONAL EXPERIENCE

## Vigyanix Inc. | Data Science Intern

June 2024 - Aug 2024

- Architected and deployed data models and visualizations for user interactions, boosting user retention by 20%
- Conducted data analysis for business insights, improving operational efficiency by 15%
- Ensured data quality and integrity for allocated areas, reducing data-related issues by 10%
- Technologies Used: Python, SQL, Pandas, Apache Spark, HTML, R

## Little Tots Family Daycare | Website Director

June 2023 - Dec 2023

- Developed and managed a dynamic website for a local daycare that enhanced parent communication/engagement by 25%
- Integrated essential features like dates, messages, contacts, and mission statements
- Technologies Used: HTML, CSS, JavaScript, Bootstrap, Svelte

## **PROJECTS**

## Tackling Distribution Shifts via Test-Time Adaptation and Optimization

June 2024 - Present

- Addressed ML challenges under distribution shifts by implementing adaptive models, improving system reliability
- Leveraged optimization techniques to speed up model adaptation to new domains using test-time adaptation
- Enhanced model accuracy, from reproducing algorithms to designing new methods with Professor Jun-Kun Wang
- Technologies Used: Python, PyTorch

### Valorant Exploratory Data Analysis

Jan 2024 - Apr 2024

- Utilized ETL processes to extract, transform, and load Valorant tournament data, assessing skill gaps between regions
- Deployed machine learning models for multiclass classification to predict regional performance based on team data
- Performed A/B testing and hypothesis testing (ANOVA) to validate findings
- Technologies Used: Matplotlib, NumPy, Pandas, Python, scikit-learn, Scipy, Seaborn

#### Food Recipes and Rating Prediction and Categorization Model

Sept 2023 - Dec 2023

- Implemented ETL pipelines to process and analyze large datasets of food recipes and ratings.
- Developed machine learning models to predict and categorize recipe ratings, achieving an 80% accuracy rate.
- Conducted data cleaning, exploratory data analysis, and implemented missingness tests.
- Technologies Used: Python, Pandas, Plotly, NumPy, scikit-learn

## LEADERSHIP & EXTRACURRICULARS

#### Boy Scouts of America | Eagle Scout, Patrol Leader, Member

Aug 2015 - Aug 2022

• Earned the rank of Eagle Scout, and led patrol meetings and campouts, enhancing leadership skills and team collaboration

## WHS DECA | President, Website Director, Member

Sept 2018 - June 2022

- Directed the creation of the WHS DECA website, boosting user engagement by 35%
- Served as President, overseeing chapter activities and strategic initiatives, and increased membership by 20%

#### **AWARDS & INTERESTS**

Awards: Provost Honors, Eagle Scout, CIF Scholar Athlete, Second Team All MVAL (Varsity Basketball)

Interests: Weight Lifting, Basketball, Baseball, Football, Videogames, Piano, Rap/Hip-Hop Music, Stock Market, Poetry

Last Updated: August 2024