# Katelyn Villamin

Portfolio

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**G** Github

### **EDUCATION**

# University of California, San Diego,

Sep 2021 - Jun 2025 | La Jolla, CA

B.A. Economics, Minor in Data Science

Relevant Coursework: Introduction to Data Visualization, Introduction to Data Mining, Introduction to Artificial Intelligence: Probabilistic Reasoning and Decision-Making, Econometrics

#### **PROJECTS**

## Mall Customer Segmentation Analysis *∂*

Jun 2025 - Jun 2025

 Developed clustering model (K-Means, Hierarchical) to group mall customers by spending behavior; visualized insights in Tableau to inform targeted marketing.

## Gamified Unplugged,

Feb 2025 - Mar 2025

How Gamifying Surveys Reduces Cognitive Load *♂* 

 Analyzed biometric data (ECG, brain waves) across two user groups; ranked Top 10% for data visualization & clarity.

## Airbnb Price Prediction (Data Mining Class Challenge) ∂

Feb 2025 - Feb 2025

 Built a pipeline to predict Airbnb prices in NYC; improved RMSE by 21% using engineered features and ensemble models. Ranked 7/109.

## SKILLS

Programming Languages: Python (Pandas, Scikit-learn, Seaborn), SQL, Java, JavaScript (D3.js), R

Tools & Technologies: Tableau, Git, Jupyter, Excel, HTML/CSS

Concepts: EDA, Data Cleaning, Visualization, Machine Learning, Clustering, Predictive Modeling

Languages: English, Filipino, Chinese, Korean

### PROFESSIONAL EXPERIENCE

## **Supplemental Instruction Leader**, University of California,

Sep 2022 - Aug 2024

San Diego - Academic Achievement Hub

- Tutored 20+ students weekly in Econ/Calculus; improved performance by 15%
- Designed structured learning plans and collaborated with faculty for curriculum alignment

### **Triton Community Programming Leader**, University of

Sep 2022 - Jun 2024

California, San Diego - Family and Parent Programs

- Coordinated 10+ campus events; improved satisfaction and future attendance
- Designed thematic activities and streamlined communication with attendees