

Katelyn Villamin

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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

Customer Segmentation Analysis

Jun 2025 – present

- Developed a customer segmentation model (K-means, hierarchical) to identify marketing personas using mall transaction data. Delivered visual insights in Tableau that informed targeted retention strategies.
- **Skills:** Customer Segmentation, Clustering (K-Means, Hierarchical), Python, EDA, Seaborn, Tableau, Marketing Analytics

Gamified Unplugged

Feb 2025 – Mar 2025

How Gamifying Surveys Reduces Cognitive Load

- Led end-to-end data visualization and analysis on biometric data (ECG, brain waves) to assess cognitive load across 2 user groups using D3.js
- Ranked in top 10% (top 5/80+ teams) for visualization quality and insight clarity.
- **Skills:** Qualitative analysis, D3.js, User Research, Data Visualization

Data Mining Challenge – DSC 148 | UCSD

Feb 2025 – Feb 2025

- Improved RMSE by 21% in predicting Airbnb prices using engineered features and predictive models (XGBoost, Gradient Boosting); ranked 7/109
- **Skills:** Data Mining, Predictive Modeling, XGBoost, Gradient Boosting, Machine Learning

SKILLS

Programming Languages: Python (Pandas, Scikit-learn, NumPy, Plotly, Matplotlib, Geopandas, Seaborn), Java, JavaScript (D3.js), SQL, Stata

Techniques: Data Wrangling, Data Cleaning, Exploratory Data Analysis, Data Visualization, Machine Learning (Regression, Classification, Clustering (K-Means, Hierarchical), XGBoost, Gradient Boosting, Model Evaluation (RMSE, Accuracy), Feature Engineering, Model Tuning)

Tools & Technologies: HTML, CSS, Tableau, Jupyter, GitHub, GSuite, Excel (advanced), PowerPoint, MS Access, Outlook

Languages: English, Filipino, Chinese, Korean

Research & Insights: User Research, Survey Design & Analysis (Qualtrics, Google Forms), Behavioral Analysis, A/B Testing, Hypothesis Testing

PROFESSIONAL EXPERIENCE

University of California, San Diego - Academic

Sep 2022 – Aug 2024

Achievement Hub

Supplemental Instruction Leader

- Tutored 20+ students weekly in Econ/Calculus, improving average performance by 15% based on feedback survey results
- Developed and submitted detailed session plans outlining learning goals, problem sets, and review activities, ensuring consistency and structure across all sessions.
- Collaborated with academic staff to align content with course objectives, reinforcing key concepts and improving student performance.

University of California, San Diego - Family and Parent

Sep 2022 – Jun 2024

Programs

Triton Community Programming Leader

- Partnered with other students in coordinating logistics for over 10 events within the Parent and Family Programs department, enhancing attendee satisfaction through tailored experiences that directly addressed participant feedback
- Collaborated in designing personalized thematic activities for events, resulting in an increase in future attendance
- Streamlined communication between family event attendees and the department, resulting in a more cohesive and well-executed event and post-event experience