Phuc Lu

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Education

B.S in Statistics and Data Science from UC Santa Barbara

Jun 2025

Projects

Data Warehouse and Analytics

June 2025 - Aug 2025

- Designed and implemented a modern data warehouse using Medallion Architecture (Bronze, Silver, Gold) to consolidate ERP and CRM data into a single, reliable source for analysis.
- Developed automated ETL pipelines in SQL Server to extract, cleanse, and transform raw CSV data into standardized, analyzable formats.
- Built and optimized fact and dimension tables in a star schema, enabling efficient SQL queries and supporting business intelligence reporting.
- Conducted exploratory data analysis (EDA) on sales and customer datasets to uncover trends in behavior, product performance, and revenue growth opportunities.
- Created clear, accessible reports and dashboards that translated complex data into actionable insights for non-technical stakeholders.
- Applied statistical and analytical techniques to improve data quality, integrate multiple sources, and support decision-making with evidence-based recommendations.

Course Recommendation System

Jan 2025 - Apr 2025

- Led a 4-person team in developing a course recommendation system by merging two complex data sources.
- Performed data cleaning, transformation, and exploratory data analysis in R; developed
 Python pairing algorithms to optimize the course matching process.
- Collected and integrated course catalog data via REST API with anonymized Kaggle student data to simulate realistic student interests, supporting development of course recommendation system.
- Delivered a presentation to 100 peers, translating technical findings into accessible insights for a non-technical audience and refining communication skills through team-led rehearsals.
- Maintained a clean and organized workflow using Git for version control and code management.
- Produced a detailed report documenting methodology, insights, and actionable recommendations, enabling further refinement and expansion of system.

- Applied machine learning algorithms to predict customer subscription on a large bank telemarketing campaign dataset containing 45,000 instances in R.
- Developed visualizations in ggplot2 and applied statistical techniques such as hypothesis testing to analyze key marketing indicators, generating insights that informed campaign improvements.
- Enhanced data quality by resolving missing values and class imbalance issues with SMOTE.
- Produced a detailed report documenting methodology, insights, and actionable recommendations, enabling further refinement and expansion of system.

Work Experience

Undergraduate Learning Assistant, Maximizing Potential Program, UCSB Aug 2024 – Dec 2024

- Tutored a cohort of 7 first-year, first-generation college students in STEM, reinforcing learning through weekly homework and case studies and supporting mastery of faculty-led concepts.
- Supported students' learning through inquiry-based questioning to lead them toward solutions to promote independent problem-solving and critical thinking.
- Partnered with another learning assistant to lead virtual discussions on Zoom and host Q&A about the college experience, fostering a peer mentoring experience.

Peer Mentor, Undergraduate Mentorship Program, UCSB

Sep 2023 - Jun 2023

- Mentored first-generation students facing academic challenges, providing strategies for effective study habits, SMART goal setting and time management, resulting in improved academic performance over two consecutive quarters.
- Partnered with program liaisons and other mentors to improve mentee's academic progress and implement effective, results driven support initiatives.