

OSCAR (SHANG-HSUAN) SU

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EDUCATION

University of California, Los Angeles (UCLA)

Double Major in Statistics & Data Science and Cognitive Science (Bachelor of Science)

Los Angeles, CA

Expected June 2026

- GPA: 3.99
- Relevant Coursework: Statistical Optimization, Data Analysis and Regression, Computational Statistics with R, Monte Carlo Methods, Statistical Modeling, Data Mining, User Experience, Psychological Statistics, Computer Science and Data Structures

WORK EXPERIENCE

UCLA Department of Psychology

Research Assistant, Computational Vision and Learning Lab

Los Angeles, CA

January 2023 - Present

- Applied **Natural Language Processing** (frequency analysis, part-of-speech tagging, & word embedding clustering) on 40k English words to select the top 30 commonly used visual impression adjectives
- Cleaned and analyzed 6 sets of human data (**Pandas**, **NumPy**, & **SciPy**), organized and visualized data (**Matplotlib** & **Seaborn**) for stakeholders, which increased project efficiency by 33%
- Extracted meaningful results from participant data through **Principal Component Analysis**, **Linear Regression**, and **Repeated Measures ANOVA**, leading to new arguments in visual perception and representation theories
- Developed and implemented 4 online experiments using **HTML/CSS** & **JavaScript** (**jQuery**) with a focus on intuitive user interfaces for 2 publishable research projects | [Example on GitHub](#)

Godot Engine

Open Source Project Contributor

January 2025 - Present

- Published an Editor plugin that handles navigation on hexagon-shaped grids, receiving more than 70 downloads. | [Link to Repo](#)
- Created 3 Pull Requests with **C++** and **XML** that fix two GDScript class reference documentation errors and one Godot Engine editor usability issue.
- Contributed in Engine localization by translating 100+ documentation entries from English to Traditional Chinese, providing access to a broader user demographic.

ACM Studio

Lead Game Developer

Los Angeles, CA

December 2023 - Present

- Self-taught 2 game engines (**Unity** & **Godot**), during the development of 8 independently-developed games, focusing on system and feature implementation | [Available on Itch.io](#)
- Produced 5 update patches in accordance to player feedback, iteratively fixing 10+ bugs and adding 6 new features within 2 months since initial release, leading to the game receiving 8,600+ visits and 1,600+ downloads | [Link to Game](#)
- Spearheaded the development of a platformer game in 72 hours which ranked #1 in a university-wise game jam competition and was featured on Studio's official website | [Link to Game](#)

PROJECTS

User Research on Slack

- Uncovered 4 usability pain points through **user interviews** and **affinity diagrams**, enabling the definition of 5 actionable user requirements of the product.
- Designed 5 interface and experience improvements aligned with user needs, resulting in a 80% positive feedback and user satisfaction during usability tests.

Data Consulting for Savills Real Estate

- Identified four emerging business hotspots by analyzing geospatial and real estate data from Savills, enabling location strategies that prioritize transit access and quality of life.
- Synthesized market and spatial trends using **GID mapping** and **time-series analysis**, delivering 6 actionable insights to guide financial firms' site selection decisions.
- Presented findings to a panel of industry professionals and professors and won **Judge's Choice Award** for clarity, analytical depth, and strategic relevance of the analysis.

Predicting Gender Pay Gap in Ireland | [Link to Repo](#)

- Constructed a predictive model using **multiple linear regression** and **Box-Cox Transformation** that models the relationship between gender pay gaps and 9 company factors, achieving an R^2 of 0.23
- Validated the goodness of fit of the model using **ANOVA**, **diagnostic plots**, **VIF**, making sure the model satisfied all assumptions

SKILLS

Programming: Python (NumPy, Pandas, SciPy, Matplotlib, Seaborn, PyTorch), C++, C#, GDScript, XML, UI/UX Design

Data Analysis: Data Visualization, Hypothesis Testing, Modeling, Experimentation, R, SPSS, Jamovi, Excel

Machine Learning: Natural Language Processing, Computer Vision/Generative AI (GANs), Regression, Data Reduction

Web Development: JavaScript (jQuery), HTML/CSS, PHP, Markdown

Language: Mandarin, English, Spanish