

# OSCAR (SHANG-HSUAN) SU

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## EDUCATION

<b>University of California, Los Angeles (UCLA)</b> <i>Double Major in Statistics &amp; Data Science and Cognitive Science (Bachelor of Science)</i>	<b>Los Angeles, CA</b> <i>Expected June 2026</i>
<ul style="list-style-type: none"><li>• GPA: 3.99</li><li>• 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</li></ul>	

## WORK EXPERIENCE

<b>UCLA Department of Psychology</b> <i>Research Assistant, Computational Vision and Learning Lab</i>	<b>Los Angeles, CA</b> <i>January 2023 - Present</i>
<ul style="list-style-type: none"><li>• Applied <b>Natural Language Processing</b> (<b>frequency analysis, part-of-speech tagging, &amp; word embedding clustering</b>) on 40k English words to select the top 30 commonly used visual impression adjectives</li><li>• Cleaned and analyzed 6 sets of human data (<b>Pandas, NumPy, &amp; SciPy</b>), organized and visualized data (<b>Matplotlib &amp; Seaborn</b>) for stakeholders, which increased project efficiency by 33%</li><li>• Extracted meaningful results from participant data through <b>Principal Component Analysis, Linear Regression, and Repeated Measures ANOVA</b>, leading to new arguments in visual perception and representation theories</li><li>• Developed and implemented 4 online experiments using <b>HTML/CSS &amp; JavaScript (jQuery)</b> with a focus on intuitive user interfaces for 2 publishable research projects   <a href="#">Example on GitHub</a></li></ul>	
<b>Godot Engine</b> <i>Open Source Project Contributor</i>	
<ul style="list-style-type: none"><li>• Published an Editor plugin that handles navigation on hexagon-shaped grids, receiving more than 70 downloads.   <a href="#">Link to Repo</a></li><li>• Created 3 Pull Requests with <b>C++</b> and <b>XML</b> that fix two GDScript class reference documentation errors and one Godot Engine editor usability issue.</li><li>• Contributed in Engine localization by translating 100+ documentation entries from English to Traditional Chinese, providing access to a broader user demographic.</li></ul>	

<b>ACM Studio</b> <i>Lead Game Developer</i>	<b>Los Angeles, CA</b> <i>December 2023 - Present</i>
<ul style="list-style-type: none"><li>• Self-taught 2 game engines (<b>Unity &amp; Godot</b>), during the development of 8 independently-developed games, focusing on system and feature implementation   <a href="#">Available on Itch.io</a></li><li>• 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   <a href="#">Link to Game</a></li><li>• 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   <a href="#">Link to Game</a></li></ul>	

## PROJECTS

<b>User Research on Slack</b>	
<ul style="list-style-type: none"><li>• Uncovered 4 usability pain points through <b>user interviews</b> and <b>affinity diagrams</b>, enabling the definition of 5 actionable user requirements of the product.</li><li>• Designed 5 interface and experience improvements aligned with user needs, resulting in a 80% positive feedback and user satisfaction during usability tests.</li></ul>	
<b>Data Consulting for Savills Real Estate</b>	
<ul style="list-style-type: none"><li>• 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.</li><li>• Synthesized market and spatial trends using <b>GID mapping</b> and <b>time-series analysis</b>, delivering 6 actionable insights to guide financial firms' site selection decisions.</li><li>• Presented findings to a panel of industry professionals and professors and won <b>Judge's Choice Award</b> for clarity, analytical depth, and strategic relevance of the analysis.</li></ul>	
<b>Predicting Gender Pay Gap in Ireland</b>   <a href="#">Link to Repo</a>	
<ul style="list-style-type: none"><li>• Constructed a predictive model using <b>multiple linear regression</b> and <b>Box-Cox Transformation</b> that models the relationship between gender pay gaps and 9 company factors, achieving an <math>R^2</math> of 0.23</li><li>• Validated the goodness of fit of the model using ANOVA, <b>diagnostic plots</b>, <b>VIF</b>, making sure the model satisfied all assumptions</li></ul>	

## 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