Jia-Wei (Jessie) Liang

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Education

University of California, Davis   Davis, CA
Ph.D., Computer Science (Concentration: Human Computer Interaction)   Sep 2019 - Present

Columbia University   New York, NY
M.S., Applied Analytics   Aug 2016 - Aug 2017

National Tsing Hua University   Hsinchu, Taiwan
B.S., Quantitative Finance   Sep 2012 - Jun 2016

Research Experience

UC Davis Collaborative and Social Computing Lab   Davis, CA
Graduate Student Researcher   Sep 2019 - Present

Fair Workload Division Dashboard
- Designed and implemented UIs with varied factorial designs to promote equitable fair workload distribution
- Developed gameplay of real-world scenarios for user studies, conducted focus group interviews and concept testing
- Analyzed quantitative and qualitative data, interpreted statistical analyses to research findings and strategic narratives

EEG and Human Perceived Fairness in Dividing Workload
- Measured EEG to understand cognitive patterns and emotional responses associated with fairness perception
- Evaluated the impact of UI designs on user cognitive load and engagement in the workload division process

I-care: Interface for Caregivers
- Improved caregiver-elder connections by analyzing elder's activity vibration data without invasiveness of cameras
- Parsed activity data and created an application that recorded activities, and sent out reminders for undone tasks

The Cognitive State and Behavior of Writing Fake Reviews
- Analyzed working memory, attentional level, and behavioral change while creating misleading content with A/B testing

Balls and Bins: Fair Redistricting
- Simulated redistricting as a two-player game of placing colored balls into bins, set algorithms for minority strategies

Work Experience

Applied Materials   Sunnyvale, CA
Business Intelligence Analyst   Aug 2017 - Sep 2019
- Analyzed tool performance datasets with local teams, identified areas for improvements and user pain points
- Synthesized complex data into intuitive visualizations, presented findings to cross-functional teams
- Led annual revenue forecast and tool delivery planning, aligned between customer demand and operational capacity

Chinatrust Commercial Bank Investments   Taipei, Taiwan
Intern, Investment Business   Jul 2015 - Aug 2015
Intern, Personal Trust Department   Jul 2014 - Aug 2014
- Conducted field research with 3 focus groups of over 20 clients to understand their needs on personal trust products
- Analyzed existing products and provided actionable insights that aligned product offerings with client goals

Publications

- **Liang, J.**, & Wang, H. (2024). *Fair Enough? Supporting Equitable Group Work Assignment with Work Division Dashboard.* Submitted.
- Fang, J., **Liang, J.**, & Wang, H. (2023). *How People Initiate and Respond to Discussions Around Online Community Norms: A Preliminary Analysis on Meta Stack Overflow Discussions*. Companion Publication of the 2023 Conference on Computer Supported Cooperative Work and Social Computing.
- **Liang, J.**, & Wang, H. (2023). *Reshaping Group Life: A Transparent and Interpretable Reward Model to Enhance Fairness in Groups*. International Conference on Collaboration Technologies and Social Computing.

Skill Sets

- Research Skills: mixed-methods research, survey, interview, usability testing, behavioral and sentiment research
- Programming & Software: Python, javascript, JMP, MATLAB, SQL, Tableau, Figma