# Catherine Ching-Ju Yu

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#### **Education**

#### University of California, Berkeley

Berkeley, CA

Master of Information Management and Systems: GPA 3.9

Aug, 2021 – May, 2023

Relevant Courses: UX Research, Quantitative Research, Data Structures and Analytics (Python), Information

Organization and Retrieval, Applied Machine Learning, Biosensory Computing

#### **National Taiwan University**

Taipei, Taiwan

Bachelor of Science in Psychology: GPA 3.6

Sep, 2015 – Jun, 2019

Relevant Courses: UX Design, Psychological Experiment, Statistics, Data Science Programming, Human Cognition

# **Projects**

# Effects of Picture Stimuli on the BCI P300 Speller

2021

Investigated how to improve the accuracy of BCI speller to assist paralyzed people with typing by thinking.

- A p300 speller detects the intersection with the maximum p300 signal to determine which character should be typed.
- Designed 2x2 experimental conditions to investigate the effect of color and picture on the accuracy of BCI speller; recruited 7 participants; analyzed and visualized EEG data using R and python; found that picture stimuli evoke a better performance compared with letter stimuli no matter the color of the stimuli.

### Language and Information Architecture: A Study of English and Mandarin E-commerce Websites

2021

Research infers that different IA should be chosen when designing website for different culture users.

- Analyzed the IA, faceted categories, and taxonomies of 3 Mandarin and English e-commerce websites.
- Results infer that Mandarin webs prefer a flatter navigation structure and use more thematic relations and brands.

## Can Older Adults' Acceptance Toward Robots be Enhanced by Observational Learning

2019

Through a mixed design approach, the experiment measures the effect of Observational Learning on the acceptance of technology between 40+ older adults and 40+ young people.

- Recruited 90+ participants; developed surveys for measuring explicit attitude; coded 2 computer cognitive tasks to measure implicit attitude using Python; analyzed and visualized data using R; filmed and produced video clips.
- Published research in the 22nd International Conference on Human-Computer Interaction (CHI).

# i-Path: A Digital Biography for Preserving Older Adults' Wisdom

A digital biography system for assisting older adults with preserving their memory and improving mental health. 2019

- Uncovered users' insight by conducting 20+ in-depth interviews with older adults and designing surveys; analyzed interviews and questionnaires using R to provide summarized reports to the engineering team.
- Published research in the 3rd NTU-Tohoku U Symposium on Interdisciplinary AI and Human Studies.

### **Experience**

**UI UX Intern** 

Taipei, Taiwan

Source Code Inc.

Jan, 2021 – May, 2021

- Interviewed with clients; designed wireframes (UX design) and high-fidelity prototypes (UI design) using Adobe XD; designed usability testing process by developing surveys and interview drafts.
- Completed 2 web platform projects from scratch with clients' recognition with a 5 members team within 5 months.

# **Marketing Intern**

Taipei, Taiwan

AVL Avance Venture Lab

Sep, 2020 – Jan, 2021

- Social Media Marketing: managed FB fan page by copywriting and designing pictures using Photoshop and Canva.
- Research: conducted market research and competitive analysis on the online language education industry.

#### **Full-Time Research Assistant**

Taipei, Taiwan

Center for Artificial Intelligence and Advanced Robotics, National Taiwan University

July, 2019 – June, 2020

• Led and cooperated with 2 engineers to accomplish a digitalized autobiography project; conducted usability testing with older adults and dementia patients; applied 5+ Institutional Review Board (IRB) for lab's research projects; organized interdisciplinary research regarding the combination of AI and psychology to write final projects

#### **Skills and Tools**

**UX Research:** Interview, Surveys, Usability Testing, Mixed Methods; **Programming Language:** Python, C#, R, Git, HTML, CSS; **Data Analysis & Visualization:** ANOVA, t-test, Regression, Ggplot2, Tidyverse, Numpy, Pandas, Matplotlib; **Design:** Adobe XD, Photoshop; **Language:** Mandarin(native), German(basic)