Yiying Pan

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EDUCATION

Zhejiang University, China   Sept. 2021 - Jun. 2025(Expected)
B.S. Psychology (Cognitive Psychology track)   *Overall GPA: 3.94/4.0 (89.99/100), Rank: 6/64*
Minor of Innovation and Entrepreneurship, **Chu Kochen Honors College**

COURSEWORK

Major course: Statistics and Big Data Analysis (100), Experimental Design and Psychological Statistics (95), Experimental Programming in Psychology (95), Signals and Systems in Psychology (94), Algorithm of Cognitive Processes Simulation (96), Personality Psychology (94), Social Psychology (91)
Minor course: Entrepreneurial Strategy(94), Marketing Research and Analysis (92), Entrepreneurial Marketing (92), New Products Development and Project Management (92), Management (92)
Certificate: Deep Learning - 2023, with a duration of 128 hours, Neuromatch Academy

RESEARCH EXPERIENCE

Personality Prediction through MOBA Gameplay Behavior | *Python, Git, Jupyternotebook*   Oct. 2024 - Present
Research Assistant   Advisor: *Prof. Shubin Yu*

- Collected and analyzed data from 1,058 participants, including preferences for roles, positions, and skills
- Obtained macro F1 scores between 0.61 and 0.68 for predicting the five Big Five personality traits using five **supervised machine learning models**
- Created relevant statistical charts and prepared presentations, manuscripts, abstracts for publication

Situation Awareness in Human-Autonomous Agent Interaction | *Python*   Jul. 2023 - Aug. 2023
Research Assistant   Advisor: *Prof. Zaifeng Gao*

- Conducted competitive analysis and brainstormed **different camera perspective scenarios** for both human-driven and autonomous driving situations
- Reviewed literature on autonomous driving, designed experiments to analyse dependent variables related to different camera perspective scenarios and compiled team control theory literature
- Analyzed data collected from *ADS (Autonomous Driving System) Intention Expression Questionnaire* using *Python* for scale calculations

Multimodal Data-Driven Personalized Music Therapy | *PyTorch*   Apr. 2023 - May 2024
Research Assistant   Advisor: *Prof. Kejun Zhang*

- **Reviewed literature** on music therapy and emotion recognition to write a review
- Fine-tuned a pre-trained emotion recognition model by the DEAP dataset's facial data and VA values
- Developed an **EEG-based emotion recognition model** by processing and filtering data from the DEAP dataset, incorporating a GAN-augmented backbone network
- Designed and conducted a subjective experiment comparing four music generation methods—Music Recommendation (Dutta et al.), Rule-based Generation (Miyamoto et al.), Random Selection, and Human Choice—using **physiological indicators and scales**

SELECTED COURSEWORK PROJECTS

Construction and Preliminary Application of Mental Internal Consumption Scale   Sept. 2023 - Dec. 2023
Project Leader   *SPSS, AMOS, Python*

- Developed an initial scale with 46 items based on a modified and open-ended questionnaire approach
- Recruited 194 participants for an online survey to collect data
- Refined the scale through *item analysis* and *exploratory factor analysis* to form 14 items with four dimensions

- Applied the refined scale to 82 participants and evaluated its reliability and validity using confirmatory factor analysis and comprehensive psychometric testing
- Synthesized findings into a **detailed report**, prepared presentation

Impact of Attention on Unconscious Perception and Its Function Stages   Mar. 2023 - Jun. 2023
Project Leader   *Matlab, SPSS*

- Reviewed literature on attention, consciousness, and unconsciousness to inform theoretical framework
- Independently designed and developed a MATLAB program to **streamline experimental processes**
- Conducted experiments to collect data of 26 participants
- Analyzed experimental data using SPSS and produced concise charts
- Drafted **research paper** of over 10,000 words adhering to APA 7th academic guidelines

Extracurricular Activities

Zhejiang University Linshui Innovation Society | *Office Minister*   Sept. 2023 – Present

- Orchestrated Mobile Photography Master Class and Sharing Session with director Cao Dun (over 50 participants)

Youth with Rainbow, Growing Together online volunteer teaching | *Math Teacher*   Jun. 2022 – Aug. 2022

- Proactively engaged with two students, delivering two lessons per week, and tailored the content to meet their needs
- Taught high school mathematics courses focused on functions, sets, and vectors, and carefully selected exemplary problems for tests, received unanimous praise from students for clarity and effectiveness

Zhejiang University Student Green Source Association | *Member*   Sept. 2021 - Sept. 2022

- Devised *Bizhi House* decoration activity within agreed budget, purchased relevant materials, and won 1st place in the competition
- Coordinated a *Nature Experience Camp* (28 participants) as part of social practice activity (one of **the top ten social practices**), guided campers in nature observation, delivered lectures on nature

Manuscripts And Posters

Pan, Y. & Yu, S. (in preparation) I Am What I Play in MOBA Games: Supervised Machine Learning Approaches to Predict Employees' Personalities Based on Their In-Game Behaviors

Pan, Y., Xiang, F & Lobaton E. (September, 2024) Facial Palsy Detection based on Yolov5, NC State

Selected Honors And Awards

1st Class Scholarship, Zhejiang University, Awarded to top 3% students	2024
Guo Xie-Bi Rong Scholarship (First Class), Awarded to 20 out of 6000+ undergraduates	2023
Nan Du Scholarship, Awarded to 6 out of 1800+ undergraduates	2022
Outstanding Volunteer, Over 250 hours of volunteer service, Zhejiang University	2023
Academic Excellence Model	2022, 2023, 2024
Innovation and Entrepreneurship Model	2023, 2024
Honorable Mention of the American Mathematical Contest in Modeling for College Students	2024
2nd Prize in National Mathematics Competition for College Students	2023
3rd Prize in Zhejiang University Mathematical Modeling Competition	2023
2nd Prize in Zhejiang Province Higher Mathematics Competition (Engineering Category)	2022

Skills

Data Analysis: AMOS & Mplus (Structural Equation Model), SPSS (Statistical Test & ANOVA &EFA), Tableau (Chart Visualization & Dashboard Design), Stata (Multiple Regression Model & Cross-section Data Analysis)

Programming: Matlab (Psychotoolbox & Signal Processing Toolbox), Python, R, LaTeX

Tools: Git/GitHub, VS Code, PyCharm/IDEA, Microsoft Office, Zotero, WordPress

Technical: Questionnaire data analysis, Experimental design, Eye Tracking, Meta analysis

Language: English (Fluent), Mandarin (Native)