

Yiying Pan

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EDUCATION

Zhejiang University, China

B.S. Psychology (Cognitive Psychology track)

Minor of Innovation and Entrepreneurship, Chu Kochen Honors College

Sept. 2021 - Jun. 2025(Expected)

Overall GPA: 3.94/4.0 (89.99/100)

GRADUATE PROJECT *In Progress*

How Social Media Shapes a Sense of Superiority: The Mediating Role of Ingroup and Outgroup Bias

COURSEWORK

Major course: Statistics and Big Data Analysis (100), Mathematical Software (100), Experimental Design and Psychological Statistics (95), Experimental Programming in Psychology (95), Introduction to Cognitive Neuroscience (98), Signals and Systems in Psychology (94), Algorithm of Cognitive Processes Simulation (96)

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

MANUSCRIPTS AND POSTERS

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

Pan, Y., Xiang, F., & Lobaton, E. (2024). Facial Palsy Detection Based on YOLOv5. *NC State Summer Student Showcase*.

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
- Predicted the five Big Five personality traits using five **supervised machine learning models**
- Evaluated the model's performance using macro F1 scores and compared it with the baseline model
- Visualized feature importance, created relevant statistical charts, prepared manuscripts

AI-based Facial Palsy Detection | *PyTorch, ECS* Jul. 2024 – Aug. 2024
Project Leader Advisor: Prof. [Edgar Lobaton](#)

- Analyzed the YFP dataset (32 videos of 21 patients), developed **YOLO-based face detection models**
- Optimized models through data augmentation and hyperparameter tuning
- Monitored losses and evaluated performance through precision, recall, and F1 scores
- Visualized and analyzed sequential detection results of facial paralysis, focusing on the ocular and oral regions

Situation Awareness in Human-Agent Interaction for Autonomous Driving | *Python* Jul. 2023 - Aug. 2023
Research Assistant Advisor: Prof. [Zaifeng Gao](#)

- Conducted a comparative analysis of in-car display products, developed a camera perspective solution
- Reviewed literature on autonomous driving, selected key metrics, designed experiments to assess in-car display
- Compiled team control theory literature
- Developed a program to analyze data from *ADS (Autonomous Driving System) Intention Expression Questionnaire*

Multimodal Data-driven Personalized Music Therapy Model | *PyTorch* Apr. 2023 - May 2024
Research Assistant Advisor: Prof. [Kejun Zhang](#)

- Conducted a literature review on music therapy and emotion recognition
- Analyzed the link between musical features and emotional arousal to design a music recommendation system
- Segmented and filtered EEG signals to develop an emotion recognition model based on EEG data
- 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 and incorporating a GAN-augmented backbone network
- Designed an experiment to evaluate four music intervention methods using **physiological indicators and scales**

SELECTED COURSEWORK PROJECTS

MyClo: your handheld fitting room

Sept. 2023 - Dec. 2023

Project Leader

- Applied the *PEST* analysis, combined the AI generation technology to conceptualize the virtual fitting APP
- Completed the preliminary design of APP, conducted comparative analysis of similar products
- Designed SOPs and conducted interviews with various categorized groups
- Made user profiles to position the target group
- Analyzed project stakeholders, output 1,000+ word *report*

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
- Refined the scale through *item analysis* and *EFA* to form 14 items with four dimensions
- Applied the refined scale to 82 participants, evaluated scale by *CFA* and *Reliability and Validity Analysis*
- 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 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

- Engaged with two students, delivered two lessons per week, tailored the content to meet their needs
- Taught high school mathematics courses, selected exemplary problems for tests

Zhejiang University Student Green Source Association | *Member*

Sept. 2021 - Sept. 2022

- Devised *Bizhi House* decoration activity within agreed budget, purchased relevant materials, won 1st place
- 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

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 in Mathematical Contest In Modeling 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, L^AT_EX

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

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

Language: English (Fluent), Mandarin (Native)