

EDUCATION

University of California, Los Angeles
Certificate in Pre-Nursing Studies

Los Angeles, CA
Sep. 2025 –

Jun. 2026

Related Coursework: Introduction to Human Anatomy, Introduction to Human Physiology, Microbiology Laboratory, General Chemistry, etc.

University of Macau
Master of Science in Data Science

Macau SAR
Aug. 2023 – Jun. 2025

Related Coursework: Machine Learning, R Language for Analytics, Data Visualization, Database System Management, Database and Data Mining Technologies, Quantitative Social Science research with Big Data, etc.

University of California, Berkeley
Graduate Non-Degree Program

Berkeley, CA
Jun. 2024 - Aug. 2024

Related Coursework: Computational Models of Cognition, Introduction to Computing, Deep Learning, Reinforcement Learning, Human physiology, Large Language Model

University of Macau
Bachelor of Science in Business Intelligence and Data Analytics

Macau SAR
Aug. 2019 - Jun. 2023

Related Coursework: Web Site Design and Internet Business Applications, Advanced Computer Programming, Cyber Security and Blockchain, Business Data Mining and Visualization, Quantitative Decision Analysis, Forecasting Models in Business, Machine Learning for Business Intelligence, etc.

RESEARCH EXPERIENCE

Yang Lab

University of Hebei

Principal Investigator: Prof. Jianli Yang

Jun. 2025 – Aug. 2025

Project 1: Research on video-based neuromodulation and EEG recording

- Conducted experiments integrating video stimuli with non-invasive neuromodulation and synchronized EEG acquisition.
- Processed EEG signals and extracted time–frequency/connectivity features.

Project 2: The development of EEG analysis software

- Developed C-based EEG analysis software with optimized memory and computation for large datasets.
- Delivered researcher-friendly tools with CLI interface and documentation.

Affective, Neuroscience, and Decision-making Lab (ANDLab)

University of Macau

Principal Investigator: Prof. Haiyan Wu

May. 2024 – Jun. 2025

Research Assistant

Project 1: Social Cognitive Assessment and Training System

- Developed a comprehensive social cognitive assessment system using the Flutter framework, creating a cross-platform application.
- Designed training modules to the application, enabling users to improve specific social cognitive skills through interactive and adaptive exercises.
- Designed and implemented questionnaire functionality within the application, allowing for the assessment of self-reported cognitive and emotional traits.
- Integrated data visualization and analysis features by python within the system, allowing for immediate feedback on test results and streamlined reporting of social cognitive metrics.
- Conducted user testing to optimize the interface and ensure reliable, accurate data capture across diverse participant groups.

Project 2: Research on Influencing Aggressive Behavior

- Designed and developed an ecologically valid game-based experimental program using Pygame, investigate factors influencing aggressive behavior.
- Programmed interactive game mechanics to elicit and measure participant responses under controlled provocation and reward conditions.

Project 3: A study of emotions by using TI tACS (Temporal Interference)

- Segmenting MRI data and localizing brain regions.
- Conducted experiments to investigate the influence of TI stimulation on deep brain regions involved in emotion regulation.
- Developed comprehensive protocols, ensuring participant safety, ethical compliance, and optimal stimulation parameters.

Project 4: Mouse tracking and memory-detection aIAT

- Developed a web-based platform enabling users to upload experimental data for online processing and analysis.

- Integrated automated data visualization tools within the platform, providing visual representations of results.
- Designed and implemented a feature to generate detailed analytical reports.

Graduate research

Project1: Enhancing and Predicting Learning Performance through Multimodal Learning Analytics

Advisor: Prof. Fu Chen and Prof. Regina, Kankan Chan

University of Macau, Jan.2024 - Jun.2025

- Conducted preprocessing steps such as data cleaning, normalization, and integration for multimodal learning analytics analysis.
- Applied machine learning models to detect patterns of student engagement and predict learning outcomes.
- Explored relationships between engagement metrics and learning performance using statistical and visualization techniques.

Project2: Move-to-Escape Enhanced Dung Beetle Optimization and Its Applications

Advisor: Prof. Xiong Wang

- Curated benchmark and engineering datasets, ensuring fair comparisons across baseline algorithms.
- Conducted statistical analysis (30-run tests, Wilcoxon, Friedman) to validate MEDBO's performance.
- Created visualizations and summary tables to highlight algorithm efficiency and robustness.
- Published in *Biomimetics* (2024)

Undergraduate research

Advisor: Prof. Tony, Kinmeng Sam and Prof. Rebecca, Wunlei Lao

University of Macau

Jan.2023 - May.2023

Project: Game Platform Management: An Online Game Store

- Designed and developed online game store platform and backend administration using ThinkPHP framework.
- Used SQL to handle user authentication, secure payment processing, and order tracking for data management.
- Designed and implemented a game recommendation system utilizing user preferences and purchase history.
- Integrated data analytics tools into the backend development platform for analysis and data *visualization* of user behavior, sales trends and platform performance.

PUBLICATIONS

1. Feng, S., Wang, J., **Li, Z.**, Wang, S., Cheng, Z., Yu, H., & Zhong, J. (2024). Research on Move-to-Escape Enhanced Dung Beetle Optimization and Its Applications. *Biomimetics*, 9(9), 517.
2. Ban, S., Lan, X., **Li, Z.**, & Mao, Y. (2024). Visual Attention Allocation and Fixation Transactions in Reading Primary Scientific Literature. *Journal of Baltic Science Education*, 23(5), 826-853.

PATENT

1. Social Cognitive Assessment and Training System (submitted, under review)

SKILLS

Programming Languages: Python, Java, SQL, HTML, PHP, JavaScript, R, and Dart

Software: MATLAB, MySQL, Tableau, Minitab, and Psychopy

Computing Environments: Windows and Linux

Languages: *Fluent* - English; *Fluent* - Mandarin Chinese; *Conversational* - Cantonese

INTERNSHIP EXPERIENCE

Antenna Electronic Commerce Co. Ltd.

Product Manager

Zhuhai, China

Jun.2021 - Apr.2022

- Launched the "Tactile Amoy" shopping applet and the "Magic Tactile" campus multi-functional applet.
- Conducted a survey and demand analysis of the target group.

Great Wall Motor Co. Ltd. (GWM Group)

Data Analyst, Marketing Department

Baoding, China

Apr. 2020 - Sept.2020

- Collected, cleaned, and organized market and competitor data to support strategic marketing decisions.
- Conducted trend analysis and generated visual reports on sales performance across product lines and regional markets.
- Collaborated with cross-functional teams to transform marketing data into actionable insights, improving campaign targeting and effectiveness.

Social Responsibility Practitioners

Director, Design and Promotion Department

China

Apr. 2020 - Sept.2020

- Formulated department operation and development planning.
- Organized the planning and published the external content of the domestic new media section.
- Regularly collected and analyzed the activities of other NGO's in China.

EXTRACURRICULAR EXPERIENCE

Archery Society of the University of Macau Students' Union

Vice President

Aug.2021 - Jun.2023

University of Macau Students' Union Mainland Students' Union

Member of the Information Department

Sept.2019 - Oct.2020

University of Macau Lui Che Woo College Students' Association

