

Lingya Huang

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EDUCATION

University of Illinois at Urbana-Champaign

Expected May 2030

Bachelor of Science in Computer Science + Education, Learning Sciences

Related Coursework:

Artificial Intelligence

Human-Computer Interaction

Data Structure

Education Technology

TECHNICAL SKILLS

Programming Languages: Python, Java

Spoken Languages: English, Chinese

RESEARCH EXPERIENCE

Evaluation of Large Language Models

Remote

Student Researcher, supervised by Prof. David Woodruff

March 2025 – November 2025

- Benchmarked four state-of-the-art LLMs (GPT-5, Gemini 2.5 Pro, ChatGLM-4.5, DeepSeek) across academic subjects using MMLU, LogiQA, and C-Eval (~1,500 questions).
- Constructed and open-sourced four exam datasets on Hugging Face via a LaTeX-to-JSON pipeline with regex parsing and two-stage manual verification; compared four prompting strategies, raising accuracy by up to 28.5% on logical reasoning tasks.
- Designed a six-category error taxonomy revealing distinct failure signatures (GPT-5: broken inference; Gemini: computation; ChatGLM: instruction-following), motivating a hybrid multi-model architecture.

Early Mental Health Issue Detection System

Remote

Student Researcher, supervised by Prof. Mark Vogelsberger

April 2025 – September 2025

- Built an early-warning framework for adolescent depression risk, integrating multimodal survey data across academic pressure, CGPA, sleep duration, study hours, and lifestyle indicators.
- Preprocessed a 28K-record dataset via imputation, min-max normalization, and categorical encoding (98% retention); trained and benchmarked four models with 5-fold stratified cross-validation and grid-search tuning.
- Identified XGBoost as the strongest predictor (AUC-ROC 0.96, under 2% accuracy variance across subgroups) and ranked academic pressure (35%), sleep duration (22%), and study hours (18%) as top features for intervention.

PROJECT EXPERIENCE

Tencent Spark Programme

Shenzhen, China

Independent Research,

June 2026 – August 2026

- Developed a security analysis system combining ATT&CK with an AI Agent Harness for enterprise attack simulation, vulnerability assessment, and security reporting.
- Demonstrated controlled agent operation through 8 access-control tests and identified 6 categories of web security vulnerabilities with corresponding risk analysis and remediation recommendations.

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

MindJoy

Remote

Founder

October 2023 – Present

- Investigated over 400 individuals across different age groups, genders, occupations, and regions to identify unmet mental-health needs and inform product design.
- Built an integrated AI mental-health platform with four core features: a self-assessment tool for users to gauge their current mental state, an AI Q&A assistant offering on-demand guidance, "Mood Tree Hole" for anonymous emotional expression, and "MindJoy Diary" for tracking mood patterns over time.
- Expanded the platform into a community initiative, broadening outreach beyond individual users and improving accessibility for underserved groups.
- Collaborated with an organization focused on marginalized communities to conduct field visits, engaging with people with disabilities, older adults, and justice-involved individuals to understand their real needs.

Underwater Robot

Shenzhen, China

Project Lead

July 2025 – November 2025

- Investigated underwater robot applications in marine exploration and freshwater assessment. Identified market demand for low-cost sediment collection and image recording.
- Modeled core components, assembled hardware, programmed control logic, and completed successful open-water tests.
- Robot collected usable substrate samples for aquatic research and pollution assessment.