JIAMIN LOU

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EDUCATION

Shenzhen university   **Shenzhen, China**

Master's degree, Modern technology for education   Sept. 2021 – June 2024

GPA: 3.61/4

Achieved a full GPA of 4.0 across 5 core courses related to educational technology.

Zhejiang Gongshang university   **Hangzhou, China**

Bachelor's degree, Computer science and technology   Sept. 2017 – June 2021

GPA: 3.39/5, which is equivalent to 83.85/100

Achieved scores of 90+/100 in 14 diverse courses in computer science, exhibiting particular expertise in system/game development, mathematical modeling, data visualization, and conducting professional experiments.

PROJECTS

Project A: Implemented optimization of formative assessment through AI-driven methods with note-tracking smart pens in middle school   Sept.2022 – Mar.2024

Conducted data collection via note-tracking smart pens and LMS, trained formative assessment model using ML techniques, executed important feature analysis through ANOVA and the post hoc test, and developed visualizations of formative assessment chart.

Project B: Developed a junior high school academic performance prediction system

Sept.2022 – Mar.2024

Led data collection efforts, trained predictive models utilizing ML techniques, and built a prediction system that focuses on presenting lists of at-risk learners and visualizing learner performance on multilayer dimensions.

Project C: Served as team leader in the creation of an intelligent sign language learning platform   Nov.2018 - Dec.2020

Oversaw the development of data-driven 3D animation sign language courses in Unity, and orchestrated AI-driven assessment modules using hand pose tracking based on OpenPose.

PUBLICATIONS AND DISSERTATIONS

Jiamin Lou & Xiaoming Cao (2024). Investigating AI-driven formative assessment with note-tracking smart pens - An exploratory study in middle school (**Project A**)
Status: Under review by *Technology, Knowledge and Learning* (EI & ESCI, IF=3.0)

Jiamin Lou, Zui Cheng, Shuning Li, & Yuanyuan Wang (2024). A systematic literature review on AI-driven gamification in K12: Insights, limitations, and future directions
Status: Under review by *Interactive Learning Environments* (SSCI Q1, IF=3.7)

Master's thesis: Research on the development and application of junior high school academic performance prediction system based on accompanying classroom data (**Project B**)

Keywords: Academic performance prediction, secondary education, artificial intelligence, machine learning, precision teaching

EXPERIENCE

Fenghuangcheng Experimental School, Guangming District   Shenzhen, China
Research Consultant   Nov.2022 – July 2023

Assisted the school in preparing application materials and report materials for the Ministry of Education's Information Technology Integration Reform Experimental School, ultimately securing a project investment of approximately 70,000 USD for the purchase of note-tracking smart pens and LMS.

Shenzhen Xuefu Middle School   Shenzhen, China
Mathematics and Programming Teacher   May 2022 – Dec.2022

Taught 7th and 8th grade students to solve mathematical problems using Python programming. Among these, the most popular lesson was using the Python-Turtle library to draw cubes, thereby helping students understand function writing in Python, and aid in solving spatial problems derived from two views.

Nanshan Foreign Language School, Kehua Campus   Shenzhen, China
Programming Club Teacher   Sept. 2021 – Dec.2021

Devised a comprehensive Python programming curriculum for 7th and 8th-grade students, comprising topics from variable definitions to the introduction of neural networks and convolutional neural networks.

AWARDS AND HONORS

Leadership in Project C - Obtained the **China Computer Software Copyright Registration** (1st out of 5 in contributions), Registration number: 2020SR0770295   July 2020

National-Level Innovative and Entrepreneurial Project for Students in 2019 (Project C) - Successfully completed the project (ranked 1st out of 5 in contributions)   Dec.2020

Shanghai City Huichuang Youth "Internet +" Cultural Innovation Category - Secured the first prize (ranked 1st out of 9 in contributions)   Aug.2020

Zhejiang Province "Internet +" Entrepreneurship Competition - Awarded the Silver prize (ranked 1st out of 9 in contributions)   Aug.2020

Zhejiang Province Challenge Cup Entrepreneurship Competition - Granted the third prize (ranked 1st out of 7 in contributions)   Aug.2020

China College Computer Competition - Network Technology Challenge, East China Region - Conferred the second prize (ranked 1st out of 6 in contributions)   Aug.2020

Huichuang Youth Entrepreneurship Competition, International Track (Business Category) - Honored with the second prize (ranked 1st out of 9 in contributions)   Nov.2020

Repeated Scholarship Recipient - Awarded three times with university-level scholarships throughout my undergraduate and postgraduate studies respectively   2018-2023

SKILLS

Machine Learning Model Training:
  Skilled in in Python (NumPy, Pandas, Scikit-learn, Keras, TensorFlow)
System Development:
  Proficient in front-end (HTML, CSS, JS), Database (MySQL), & back-end (Python-Flask)
Data Visualization:
  Expertise in Python tools (Matplotlib, Seaborn) and D3.js
Statistical Analysis:
  Skilled with SPSS statistical software