ZHENG LI

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OBJECTIVE

Looking for research assistant positions relate to Computer Science (including Computer Network, Human Computer Interaction, Machine Learning, Information Retrieval, Web System etc.).

EDUCATION

University of Michigan, Ann Arbor, U.S.   Expected May 2024
B.S.E. Computer Science (Dual Degree)   Cumulative GPA: 4.00/4.00

Shanghai Jiao Tong University, Shanghai, China   Expected August 2024
B.S.E. Electrical and Computer Engineering (Dual Degree)   Cumulative GPA: 3.83/4.00
Minor in Entrepreneurship

PUBLICATION

Li, Zheng, Caiwei Chen, and Pradeep Kumar Ray. "Robotics for Autism- Robotic Technologies for ASD Treatment." Asian Hospital & Healthcare Management. https://www.asianhhm.com/information-technology/robotics-for-autism.

EXPERIENCE

Research Assistant in RobustNet Lab   January 2023 - Present
University of Michigan   *Ann Arbor, MI*
Supervisor: Prof. Z. Morley Mao

- Reviewed current literatures about network system design of Low Earth Orbit satellites (LEO) and their advantages/disadvantages.
- Developed a network performance measurement system for Starlink.
- Implemented recognition algorithms for LEO handover problems.

Student Assistant of JI Centre For Entrepreneurship   July 2021 - August 2022
Shanghai Jiao Tong University   *Shanghai, China*
Supervisor: Prof. Pradeep Kumar Ray

- In Project "Robotics for Autism", constructed a low-cost autism diagnosis system using eye-tracking technologies based on computer vision.
- Reviewed current robotic technologies used in Autism diagnosis and treatment and published a paper on AHHM based on the review.
- Reviewed current technology integration practice in education.

Teaching Assistant of Honor Physics (VP160)   May 2022 - August 2022
Shanghai Jiao Tong University   *Shanghai, China*
Supervisor: Dr. Mateusz Krzyzosiak

- Hosted weekly recitation classes, office hours and graded weekly assignments.
- Designed problems for midterm and final exams.

Writing Consultant of JI Writing Center   September 2021 - Present
Shanghai Jiao Tong University   *Shanghai, China*
Supervisor: Dr. Amalia Jiva

- Held consulting sessions to guide the students in JI to improve their essays and writing skills.
- Led a group of writing consultants to provide embedded consulting services for the course VY200 (Academic Writing II).

Software Engineer Intern December 2021 - March 2022

TURINGO *Shanghai, China*

- Wrote testing programs for the laser routing programs.
- Did research relates to RS-code, quantum encryption technology and light storage chips.

SELECTED PROJECTS

Emotion Classifier for Reddit Post

- Trained machine learning model to classify the emotions in Reddit posts.
- Did feature engineering and used several different machine learning classifiers including LinearSVM, QuadraticSVM etc. to improve classification correctness. Finally improved the accuracy by 10% compared with the original basic LinearSVM model.

MiProxy

- Built a Proxy that can handle video streaming requirements between multiple clients and servers.
- Implemented adaptive bitrate selections for video streaming to minimize annoying buffering and improve user experience.
- Realized distance based server selection using Dijkstra algorithm.

IPerfer

- Implement a program that can test the throughput from both server side and client side.
- Used Mininet to set up network and test the performance of the IPerfer

SillyQL: A Simplified Query Language

- Implemented a program that support basic SQL commands including insert, select, join, where etc.
- Used hash map and binary searching tree to accelerate some commands' execution.

Insta485: A Simulation Program for Instagram

- Implemented a static site generator that can automatically produce HTML templates for static web pages.
- Implemented an Instagram clone that has basic Instagram functions with server-side and client-side dynamic pages.

HONOR & AWARDS

University of Michigan College of Engineering Dean's Honor List	January 2023
SJTU Undergraduate Excellent Scholarship Class A(top 2 %)	November 2022
The Jackson and Muriel Lum Scholarship(top 3 %)	August 2022
The 2021 University Physics Competition Bronze Medal Winner	January 2022
The John Wu & Jane Sun Sunshine Scholarship	November 2021
UM-SJTU Joint Institute Student Development Scholarship	March 2021

SELECTED COURSES

Computer Network, Web System, Machine Learning, Computer Security, Data Structures and Algorithms, Introduction to Computer Organization, Foundations of Computer Science, SQL and Databases, Linear Algebra, Discrete Mathematics, Intro to Probability & Statistics, Intro to Logic Design, Intro to Signals and Systems

SKILLS

Computer:	C++, C, Python, SQL, HTML, Linux, MATLAB, JavaScript, Verilog, LaTeX, Mathematica, Blender
Language:	Bilingual in Chinese and English