WEIHAO LI

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EDUCATION

Rensselaer Polytechnic Institute   Troy, NY

BS in Computer Science   Aug 2021 - May 2025

- GPA: 3.78/4.0
- Dean's Honor List (Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024)
- Relevant coursework: Data Structures, Computer Organization, Intro to Algo, Data Science, Machine Learning from Data, Intermediate Logic, Operating Systems, Intro to AI, Xinformatics, AI for Science, Programming Language, AI for Conservation, Software and Design and Documentation.

RESEARCH EXPERIENCE

Rensselaer Polytechnic Institute   Troy, NY

Undergraduate Researcher   Aug 2023 - Dec 2023

- Developed and implemented a method for reading and storing nodes and edges from files into the Neo4j database, and created a new edge class that utilizes Neo4j as its storage, enabling it to execute all PubNet methods.
- Conducted and evaluated a series of tests to compare the performance of the new edge class with the existing edge classes, and gained valuable insights into working with graph databases and Neo4j.
- Authored a comprehensive research summary which encapsulates the methodology, findings, and implications of the project.

PROFESSIONAL EXPERIENCES

Beijing Xingtiandi Information Technology Co., Ltd.   Beijing, China

Algorithm Engineer Intern   May 2024 - Aug 2024

- Acquired proficiency in YOLO V5, creating and labeling custom datasets, followed by training and validation.
- Mastered NeRF and Gaussian Splitting methodologies, capturing videos of custom items, utilizing Colmap for camera parameter extraction, and NeRFStudio for generating point clouds, meshes, and rendered videos.
- Engaged deeply with research literature on cutting-edge technologies such as NeRF, Structure-from-Motion(SFM), feature detection algorithms like SIFT, and other computer vision techniques.

Beijing Tongfang Software Co., Ltd.   Chongqing, China

R&D Engineer Intern   Jul 2023 - Aug 2023

- Contributed to the integration of MyBatis with the PostgreSQL database, enabling efficient data retrieval for the frontend colleague.
- Revamped existing functions into a WebService and crafted a comprehensive "Data Transmission Interface Specification" for customer understanding and implementation.

Chongqing Everbright Network Technology Co., Ltd.   Chongqing, China

Product Engineer Intern   Jun 2022 - Aug 2022

- Created Axure prototypes for UI visualization, gathered feedback, and ensured alignment with project goals to enrich personal skills and understanding of user-centric design.
- Authored detailed logical designs and procedural specifications, applying best practices for the development of a C# Winforms software with MySQL backend.

PROJECTS

Hasspathway   Aug 2022 - Dec 2022
- Collaborated with a team of three to develop comprehensive web pages for various courses, organizing and presenting essential course information using Vue.js.
- Independently implemented rating and comment functionalities to enhance user engagement.

HackRPI Mobile   Aug 2023 – May 2024
- Led a group of two to design and implement schedule features for the mobile application using React.js. Engineered functions to arrange events chronologically within a scrollbar, highlighted ongoing events, and seamlessly removed concluded events for an enhanced user experience. Additionally, implemented an expandable box for detailed calendar information, providing users with a comprehensive view of event details.
- Improved the Mentor Queue UI, featuring a dynamic time count to track students' wait duration. This intuitive interface displays the number of students in the queue, their respective positions, and utilizes a circular indicator to convey the progress of each student
- Implemented the frontend and backend Login functionality using React.js for the frontend, Java for the backend, and Firebase for the database. Developed a secure authentication process allowing users to enter their credentials, generate and regenerate verification codes, and verify usernames and passwords through Firebase.

LEADERSHIP & EXTRACURRICULAR EXPERIENCES

Rensselaer Polytechnic Institute   Troy, NY
Computer Science Mentor   Aug 2022 - Present
- Provide 4-semester mentoring services to students enrolled in 3 courses, including Computer Science I, Data Structures, and Principles of Software.
- Provide support to approximately 35 students during lab sessions.
- Conduct regular office hours, offering guidance and assistance to students with questions about class content or with concerns about assignments and exams.
- Participate in proctoring exams and marking exams, quizzes and assignments.

Varsity Golf Team of Rensselaer Polytechnic Institute   Troy, NY
Member   Aug 2021 - Present
- Participate in in-season and off-season golf training and represent the University at tournaments.

TECHNICAL SKILLS & LANGUAGES

Programming: Python, C++, C, JAVA, SQL, HTML

Tools: GitHub, Anaconda, Visual Studio Code, Axure, Firebase, Figma.

Languages: English (fluent), Mandarin Chinese (native)