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LINDA (CHUYI) ZHAO

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Education

Tufts University — Medford, MA
M.S. in Computer Science | GPA:3.89/ 4 — *Sep. 2022 – May 2024 (expected)*

ShanghaiTech University — Shanghai, China
B.E. in Computer Science and Technology | GPA:3.5/ 4 — *Sep. 2018 – Jul 2022*

Selected Courses: Data Structure and Algorithms, Operating System (TA), Computer Architecture, Software Engineering, Database Management, Artificial Intelligence, Deep Graph Learning, Probabilistic Robotics

Technical Skills

Programming Languages: Python, C/C++, Java, HTML/CSS, JavaScript, SQL(PostgreSQL), MongoDB
Frameworks & Technologies: Vue.js, React.js, Node.js, PyTorch, LaTeX
Developer Tools: Git, Linux, VS Code, Visual Studio, IntelliJ Idea, Docker

Experience

Software Engineer Intern — Waltham, MA
Siemens EDA | C/C++, Bash, Python — *May 2023 – Aug 2023*

- Optimized the hardware-assisted emulator system of 20+ years, with a 90+% speedup in a critical compile time.
- Implemented automation scripts for experiments on 4 benchmarks with 4 factors to figure out the optimal design.
- Collaborated within a compact expert team, and developed a debugger for efficient interaction with the system.

Teaching Assistant — Medford, MA
Tufts University | Operating System, C — *Feb 2023 - May 2023*

- Hold office hours to help students with coding, debugging, understanding concepts, and graded assignments.
- Frequently communicated student progress and provided feedback to the professor, to support effective teaching.

Software Developer Intern — Shanghai, China
Shanghai Neogenint Technology Co.Ltd | Javascript, Python, Java, — *Jul 2021 – Oct 2021*

- Involved in embedded software development and program testing focusing on deep learning.
- Developed robotic programs including real-time crack detectors and *JetBot*, used as foundation for future projects.
- Generated server performance testing reports using *MLPerf Benchmarks* to enhance the server design workflow.

Undergraduate Research Assistant — Shanghai, China
ShanghaiTech University | Javascript, Python, MongoDB — *Jul 2021 – Sep 2022*

- Contributed as a key member in three visual analytics projects, with one accepted by an IEEE conference and another under review. Emphasized full-stack development and utilizing AI predictive models for data analysis.
- Created web applications focusing on interactive visualizations utilizing Vue.js, D3.js, and PyTorch.
- Designed visualizations using **Figma**, and created accompanying videos for paper supplement materials.

Selected Projects

MBTA Train Synchronization System | *Java* — *Dec 2022*

- Implement a multi-threaded simulation of the railway system with scheduled train routes to serve passengers.
- Used Gson for JSON file input and output verification, and JUnit for unit testing, and passed over 100 tests.

Commercial Visual Analytics App: *PromotionLens* | *Javascript, Python, MongoDB* — *Jul 2021 – Sep 2021*

- Developed a full-stack web application with **Vue.js, React.js** as frontend and **MongoDB** for the backend.
- Used Python for data crawling and processing, **D3.js** for data visualization, and combined trained AI predictors with Flask to enable users to evaluate and develop promotional strategies.
- Collaborated with experts and stakeholders to complete studies and iterated the application designs as needed, resulting in **acceptance by *IEEE VIS2022 conference*.**

Embedded App on Nvidia Jetson Nano: JetBot | *Javascript, Java, Python, SQL, Docker Jul 2021 – Sep 2021*

- Designed and implemented a web application on Jetson Nano using **Vue.js** for the frontend and **SpringBoot** framework with **SQL** for the backend. Equipped the small robot with a camera, engines, wheels, and a monitor.
- Implemented features such as face recognition, voice prompt, and obstacle avoidance (using AI and TTS APIs), enabling the JetBot to move and interact with people safely. The code was used as a basis for the future robotic project.

Bioinformatics: PPI Prediction Based on Multi-Channel Deep Learning | *Python* *Sep 2020 - Apr 2021*

- Preprocessed nearly 20,000 PDB datasets using scripts on high-performance computing servers.
- Developed a deep learning framework with **PyTorch** and trained a predictive model with an accuracy of 92.7%.

Operating System Projects: *PintOS from Standord* | *C* | *project link* *Sep 2020 – Nov 2020*

- Developed an operating system including the implementation of thread, memory, and file system management.
- Implemented concurrency using semaphore-based locks, scheduling threads with different priorities, and handling user program operations, system calls, virtual memory, and page faults.

Selected Hackathon Awards

TechTogether Boston 2023 | *UI Design, Software Development* | Winner of 3 prizes [work link] *Oct. 2022*

SC21 Student Cluster Competition | *HPC* | Winner of the Reproducibility Challenge *Nov. 2021*