Shangjie (Henry) Zheng

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EDUCATION

Southern Methodist University (SMU) ····· GPA: 3.96/4.00
Master of Science in Computer Science ····· Anticipated May 2024
University of Missouri-Kansas City (UMKC) ····· GPA: 3.52/4.00
Bachelor of Science in Mechanical Engineering ····· May 2021

SKILLS

- **Portfolio:** https://www.shangjiezheng.com
- **Languages**: Java, Python, TypeScript, JavaScript, HTML/CSS, SQL, MATLAB
- **Frameworks & Database**: Django, React, Node.JS, Express.JS, MongoDB, MySQL
- **Methodologies**: Database Management, OOP, Machine Learning, NLP, RESTful API, Network Architecture
- **Development Tools**: VS Code, IntelliJ, PyCharm, WebStorm, Amazon Web Services, Postman, Docker, GitHub

PROFESSIONAL EXPERIENCE

Teaching Assistant ····· *Southern Methodist University* ····· Feb 2023 – May 2023
- Teaching assistance: assisting professor and students from CS3353, *Fundamentals of Algorithm*, answering questions raised by the students in class, and helping with their study progress.
- Grading: grade each assignment for the class and provide students with feedback.

Mechanical Engineer ····· *Fuyao Glass Illinois Inc.* ····· Jun 2021 – Jun 2022
- Manufacturing process: Monitor the production statistics data on daily basis; analyze possible causes to equipment downtime and come up with solutions to enhance the equipment performance in the long term.
- Quality Control: Implement methods to inspect, test and evaluate the reliability of manufacturing processes, products, and production equipment.
- CAD design: Perform 3D/2D design of certain machine parts using AutoCAD.
- Engineering Assistance: collect production data, organize, and prepare purchasing plans for management reviews.

Mechanical Engineer (Internship) ····· *Fuyao Glass Illinois Inc.* ····· Summer 2018/2019/2020
- Engineering Training: Studying the fundamentals of equipment adopted on the production line, basics of float glass process engineering; Plant PM process.
- CAD design: Research and Design with Computer-aided tools. Performing 3D/2D design on Auto CAD for projects assigned from maintenance/wareroom/packaging department; submit for review/testing/fabrication.
- Engineering Assistance: Assist communicating among the engineers from China, and local company employee; Preparing data for management reviews.

COMPLETED PROJECTS

TA Management System, SMU | *TypeScript, React, Node.js, MySQL, Jest, GitHub* ····· Spring 2023
- Drove development in a Scrum team, overseeing all stages from requirements analysis to application deployment.
- Developed a dynamic full stack application using React (front-end) and Node.js (back-end), integrated MySQL database, ensuring user-friendly experience and effective data handling.
- Utilized software tools for version control (GitHub) and container environments (Docker) during team development.

Roadside Assistance Application, SMU | *JavaScript, Node.js, Express.js, MySQL, HTML, CSS* ····· Fall 2022
- Developed web application that provides direct driver-technician communication platform.
- Designed and implemented user interface using HTML/CSS, and Express.JS framework.
- Developed middleware set using JavaScript on Express.JS framework to implement post, get and other functions to interact with the user interface and backend database.
- Designed and implemented logics to interact with the MySQL database created for backend of the software system.

Two-Phase Locking System Implementation, SMU | *Java* ····· Fall 2022
- Implement the two-phase locking model using Java programming language.
- Create 3 classes with the program, each represents Database, Lock Manager, and Transaction, the program coordinates the progress of each transaction.
- Implement methods for transactions to write/read in the Database object, and the program would using random number strategy to select transaction to proceed and determine whether to grant the transaction request with permission (S-lock or X-lock) or to abort the program when deadlock occurs.

Quadcopter Control System, UMKC | *Python, PID Control System* ····· Fall 2020
- Collect, analyze, and improve measurement data.
- Design and evaluate multi-input, multi-output feedback control system.
- Integrate and utilize measurements with physical hardware and software-based embedded control algorithm to create a PID control system.
- Make the quadcopter perform roll/pitch actions with rate and angle control.

HONORS AND AWARDS

- School of Computing and Engineering Dean's List, UMKC ····· Spring/Fall 2017, Spring/Fall 2018, Spring 2021
- Dean's International Scholars Awards, UMKC ····· Jan 2017
- Honor's College, UMKC ····· Jan 2018