Yingeng Liu

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EDUCATION

B.S Computer Science & Data Science   **Expected Graduation: May 2024**
Rose-Hulman Institute of Technology   *Cumulative GPA: 4.00/4.00*

PROFESSIONAL EXPERIENCE

Zap Surgical   **San Carlos, CA**
Software Intern   *Jun 2021 – Aug 2021*
- Gained experience on software product development workflow in DevOps environment
- Participated in and contributed to code standardization project, refactored over 20 libraries across project solutions to conform to code standards, discovered and fixed 2 software bugs
- Developed and implemented an email configuration tool to test the system email settings
- Collaborated with another intern to simplify system collision map GUI to serve as a testing tool for other software team development
- Learned design patterns, such as Singleton and Inversion of Control (IoC) and utilized IoC to reduce coupling

PROJECTS

Genetic Research Algorithm
Java   *Dec 2020 – Feb 2021*
- Worked in a team of 3 to implement a simulator that evolves a set of individual's genes into specific structures
- Included 10 parameters which users can modify to see the effects on a population throughout generations
- Implemented Ranked, Roulette, and Truncation selection to see the effects of different selection models across generations
- Implemented a new selection method that reproduces results from a classical genetic paper to show learning during individual lifetime can guides course of evolution

A* Path Finding
Java   *Apr 2021 – May 2021*
- Led team of 3 students in implementing more optimized shortest-path algorithm and its graphical representation
- Implemented 2 heuristic functions (time, distance) for better shortest-path searching
- Utilized data from Google Maps in path cost calculations in both time and distance

Life Manager
HTML, CSS, JS, Firebase   *Oct 2021 – Nov 2021*
- Implemented and designed a website that combine a calendar and to-do list in one platform
- Utilized Firebase for user authentication and database to store user specific information to allow real time data communication
- Employed Unsplash RESTful API to allow users customize their website background appearance

SKILLS

Languages: Java, C#, C, JavaScript, HTML, CSS, Python
Platforms: Git, Azure DevOps, Firebase
Relevant Coursework: Data Structure and Algorithms Analysis, Intro to Web Programming, Intro to Computational Science, Object Orientated Software Development, Computer Architecture I, Operating System

HONORS & AWARDS

- Dean's List and Dean's Scholar for 4.0 GPA(Fall, Winter, Spring 2020)
- President's Volunteer Service Award Gold Level (2019)
- USA Computing Olympiad Silver Division
- Rose-Hulman Merit scholar