Zhanwei Zhang

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No. 1088 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong

EDUCATION

Southern University of Science and Technology　　　　　　　　　　　　**Sep. 2021 ~ Now**

Bachelor of Science in Computer Science and Technology, Turing Master Class

GPA: 3.79 / 4.0 | Weight Avg Score: 90.86 | Ranking: 34 / 189

Main courses: Introduction to Math Logic(A+), Introduction to Computer Programming(A+), Calculus(A), Linear Algebra(A), Data Structures and Algorithm Analysis(A), Principles of Database Systems(A-), Machine Learning(A), Compilers(B+)

RESEARCHES

Estimating Global Aviation CO2 Emissions with Comprehensive Flight Data　　　**Apr. ~ Dec. 2022**

Analyze 10 TB data (1 billion records) using statistical and machine learning methods.

The manuscript has been submitted to Environmental Science & Technology on April 16, 2024.

LLM-Based JSON Parser Fuzzing for Bug Discovery and Behavioral Analysis　　**Sep. 2023 ~ Jan. 2024**

Use opensource LLMs such as Llama2-7B/13B to generate test cases.

13 JSON Parsers and over 100 types of cases have been tested. Over 26 behavioral diversities have been found.

Visiting Research at University of Waterloo　　　　　　　　　　　　　　**Mar. ~ Aug. 2024**

Analyzed the logging data across various programming languages and improve software quality assurance processes.

PROJECTS

Othello Game through Java and Python Programming with Strong AI　　　　**Oct. ~ Dec. 2021**

Developed visually appealing interface and implemented Monte Carlo & Alpha Beta Pruning algorithm.

Rank: 3/29 | Win Rate: 81% (In Turing Class)

Capacitated Arc Routing Problem Project　　　　　　　　　　　　　　　　**May 2023**

Implemented an effective heuristics algorithm by memetic algorithm and hybrid metaheuristic approach.

Innovative Ordering Method, System, Terminal, and Medium Patent　　　　　**May 2023**

Innovated a method and system to alleviate peak-hour traffic in cafeterias.

Applied for patent recognition under Chinese Patent Office, application no. 202310498065.2.

Canteen Traffic Monitoring (https://sustech.online/canteen)　　　　　　**Dec. 2023 ~ Jan. 2024**

Calculate the length of the queue by monitoring data, and display a chart showing the changes in queue length.

Won award for finalist in National College Students' Innovation and Entrepreneurship Training program.

About 30,000 visits within three months.

SKILLS

Languages: English (Fluent), Mandarin (Proficient), Cantonese (Proficient)

Programming Languages & Frameworks: Java, Python, C/C++, SQL, Spring Boot, Vue

Tools: IntelliJ IDEA, PyCharm, Visual Studio Code, Anaconda, Git

HONORS & SCHOLARSHIPS

Bronze Medal Winner, SUSTech Cluster Competition	March 2023
Honorable Mention, Mathematical Contest in Modeling	May 2023
Finalist, National College Students' Innovation and Entrepreneurship Training program	June 2023
Third Prize, China Undergraduate Mathematical Contest in Model	September 2023