Hsing-Hao (Jerry) Wang

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Education

Rutgers University - New Brunswick

May 2023

Bachelor of Science in Computer Science

Relevant Coursework: Compilers, Internet Technology, Principles of Programming Languages, Principles of Information and Data Management, Software Methodology, Systems Programming

Experience

Software QA Engineer Intern

Oct 2020 - Aug 2021

Eslite Corporation

Taipei, Taiwan

- Improved the search domain performance by implementing Amazon Cloud Search to customize text relevance ranking and index data, resulting in 15% increase in search performance
- Developed and executed 400 test cases to optimize checkout flow using Python for automated testing, fixed 2 major crashes regarding shipment information and delivery instructions
- Inspected webpage contents using Chrome DevTools and analyzed discovered issues, providing insights to senior engineers that reduced webpage load time by 200ms

Software Engineer Intern

June 2019 - Aug 2019

Acer Inc.

Taipei, Taiwan

- Worked with a team of 4 engineers to design an Automated Guided Vehicle using Python and Microsoft Azure's AI Cognitive Services (computer vision image classification) for Acer's AI workshop
- Improved the AGV's recognition model with 100 traffic scenarios and field test data using Microsoft Azure AI Cognitive Services, resulting in 60% improvement in vision recognition precision
- Collaborated with the customer service team to provide remote troubleshooting, drafted manuals for Microsoft products, and reduced customer complaints by 20%

Projects

Pascal Subset Compiler

Mar 2023

- Build a syntax-directed translation parser and code generator that generates ILOC code for the Pascal Subset using Flex and Bison
- Implemented the register-register model by transferring a scalar variable from virtual registers to physical registers to maximize the opportunities for register allocation

Local Register Allocation Simulator

Feb 2023

- Designed a bottom-up local register allocation simulator that produced a function equivalent ILOC operation programs where it uses no more than k number of registers
- Implemented the simulator using Chaitin's algorithm and forward list scheduling algorithm in C++ to minimize the use of register spilling and maximize functional unit utilization

Skills

- Languages: C, C++, Java, Python, SQL, MySQL, MongoDB, HTML5, CSS, Linux
- Services: Microsoft Azure Cognitive Services, AWS Cloud Search