William Li

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EDUCATION

University of Michigan **Ann Arbor, MI**
Bachelor of Science in Computer Science *December 2021*
GPA: 3.82/4.00; University Honors Distinction
Coursework: Operating Systems, Web Systems, Software Engineering, UI Development, Human-Centered Software, Data Structures & Algorithms, Theory of Computation, Probability & Statistics, Linear Algebra

SKILLS

C++, C, Python, Java, JavaScript, React, HTML/CSS, PostgreSQL/SQL, R, AWS, Git, Agile, Karate

RELEVANT EXPERIENCE

Capital One **Richmond, VA**
Software Engineer Intern *June 2021 – August 2021*
- Modernized legacy SOAP API with 5,000,000 daily volume and reduced complexity by 67% in ***Agile*** workflow
- Designed ***REST API*** architecture to modify eConsent preferences in ***PostgreSQL*** using ***Java Spring Boot***
- Created API test-automation scenarios using test-driven development in ***Karate*** framework
- Conducted performance testing and production deployment using ***Jenkins*** and ***AWS***

University of Michigan, School of Information **Ann Arbor, MI**
Undergraduate Researcher (Data Analyst) *September 2019 – August 2020*
- Cleaned, mined, and analyzed log file data from 288,547 users of CS eBooks to improve online education
- Analyzed student behavior using ***C++***/***Python*** to identify effectiveness of instructional scaffolding
- Visualized data using ***R/Excel*** to present students' interactions toward different computer science concepts

University of Michigan, School of Information **Ann Arbor, MI**
Undergraduate Researcher (Front End Developer) *July 2020 – August 2020*
- Created unit tests using ***Selenium*** and ***Python*** to ensure user functionality for online course assessments
- Debugged appearance of coding questions in open-source Runestone eBook using ***JavaScript***

PROJECT EXPERIENCE

Operating Systems (Thread Library, Pager, Disk Scheduler, File System)
- Developed threads and monitors for uniprocessor and multiprocessor systems in ***C++***
- Created a pager that manages, allocates, and switches between application processes' virtual address spaces
- Implemented system calls applications can use to create, copy, destroy address spaces, and interrupt handler
- Tested and debugged using ***GDB***, ***Valgrind***, and automated regression testing scripts

ScholarMe (Website Alternative to Google Scholar Extension)
- Constructed personas and conducted think-aloud sessions to improve application (user manual)
- Used ***HTML/CSS***, ***JavaScript,*** Porter stemming algorithm to perform keyword analysis and automated queries
- Incorporated analysis of text and ***JSON*** files to further increase research efficiency

Instagram Client-side Clone
- Implemented client-side dynamic pages using ***HTML/CSS***, ***Python (Flask)***, ***React***
- Built Instagram application with customized feed, double click to like, and infinite scroll functionality by rendering ***SQL*** database making ***AJAX*** calls to ***REST API***

Certification

J.P. Morgan Software Engineering Experience: Established financial data feeds and analyzed stock price data