Merlin Zhao
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SKILLS

Software: Python, Java, C, HTML/CSS, Javascript, Git, Uni, MySQL, C++, Ruby, Swift

PROFESSIONAL EXPERIENCE

PCIE Design and Validation Engineer, Intern
May 2020 - Present
ADVANCED MICRO DEVICES (AMD)
- Enhanced scripts by optimizing existing algorithms, reducing runtimes from 12+ hours down to 5 mins
- Improved MySQL query performance by 35% through optimization techniques such as indexing
- Collaborated with RTL designers to develop triaging tools that facilitate faster design verification
- Maintained team's automated regression testing website; built upon Ruby on Rails, Perl, Python and MySQL

Front End Developer Intern
May 2019 - August 2019
MENLOLAB INC. (STARTUP)
- Developed interactive web elements that visualize large sets of data using Vue.js and D3.js
- Reduced client-side errors/downtime by 60% through implementing data type validation and error handling
- Improved rendering performance by up to 20% through optimizing JSON structures and front end algorithms

PROJECTS & EXTRACURRICULARS

merlinzhao.me / Personal web portfolio created from scratch with Vue.js
2019/2020
- Optimized code readability; 40% reduction in lines of code by taking advantage of reusable components
- Utilized the latest web standards such as HTML5 and CSS3; ensured cross-browser compatibility

NavText / Placed second overall at Hack Western
2018
- Established an iOS travel application using Swift, StdLib, MessageBird along with Google Maps, Uber, and Weather Network APIs to deliver weather and landmark information through SMS messaging
- Demonstrated leadership by leading a team of 4 to deliver a quality product and an engaging pitch to judges

Esduino Pulse Monitor
2017
- Utilized knowledge in data acquisition through serial communication to acquire an analog signal, process the observed data, and graphically display the data through Matlab
- Demonstrated knowledge in design validation, microcontrollers, and hardware programming in C

Space Escape
2017
- Developed a multiplayer Python game; built upon the concept of object oriented programming
- Displayed fundamental knowledge of the software development life cycle which streamlined development

Web Developer / Design and Logistics Executive
DELTAHACKS (HACKATHON)
October 2018 - February 2020
- Assisted in the development of deltahacks.com using Vue.js, which accumulated over 2000 visits
- Proactively engaged in logistical problem solving to provide the best experience for over 500 attendees

Creative Design Executive
MCMASTER ASIAN FOCUS (CLUB)
September 2017 - April 2020
- Coordinated fundraisers to raise over $1400 for charity within a span of 8 months
- Created advertisements for social media with Sketchup and Adobe Photoshop, which increased revenue by 21% compared to the prior year

EDUCATION

B.Eng of Computer Engineering
September 2016 - Present
MCMASTER UNIVERSITY
Programming Coursework: Data Structures, Operating Systems, Software Development, Princ. of Programming
E.E. Coursework: Digital Systems, Embedded Systems, Microprocessors, Logic Design, Circuits & Systems