Qilin Liu

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EDUCATION

Master's Degree, Computer Science San Jose State University, San Jose Overall GPA 3.93/4.00

May 2021

August 2019

Bachelor's Degree, Computer Science University of California - Santa Barbara, Santa Barbara Overall GPA 3.91/4.00

RELEVANT COURSEWORK

Automata and Formal Languages, Computer Architecture, Computer Graphics, Computer Networking, Distributed Computing, Data Structure Algorithm, Database Systems, Human-Computer Interaction, Machine Learning, Operating Systems, Parallel Programming, Programming Languages, Web intelligence

TECHNICAL SKILLS

Programming languages: Assembly, C, C#, C++, Java, Python, Ruby Web development: AngularJS, CSS, HTML, JavaScript, jQuery, ReactJS, Sass, PHP Other: Git, iText, Linux, SAS, SQL, Selenium, VHDL

WORK EXPERIENCE

Software Engineering Intern, We Care Insurance, San Jose Aug 2020 - Apr 2021

- Lead a team of nine to create an automated insurance quoting platform
- Retrieve user info from MySQL and use Selenium in Java to buy insurance plan
- Web scrape the quote to generate PDF documents which are sent to the user

Software Engineering Intern, VisualThreat Inc., San Jose Jan 2020 - Jul 2020

- System maintenance and bug fix on Windows, Linux, iOS and Android platforms
- Develop Python programs to process and organize CAN bus data and metadata
- Refactored existing programs and make their sizes up to 10 times smaller

ACADEMIC PROJECTS

CAN bus IDS implementation using OCSVM, SISU

- Master's thesis that aims to find a way to defend vehicles against cyberthreats
- Proved detecting every malicious CAN packet is unnecessary to prevent intrusion
- Proposed an IDS design that guarantees to detect anomaly within one second

Multilayer PageRank algorithm, SISU

- Improved PageRank speed by 20% with my new optimized PageRank algorithm
- Reduced the time complexity from $O(n^2)$ to O(n) while preserving 87% accuracy
- Implemented the algorithm using Python and provided demonstration for class

Fall 2019

- Spring 2021