Jonathan Jiang

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Education

Master of Science in Computer Science Graduated: Dec 2024
San Jose State University, San Jose, CA

B.S. in Mathematics-Computer Science Graduated: Jun 2018
University of California, San Diego, CA

Technical Skills

Languages: Java, C/C++, Go, Python, SQL, JavaScript, Bash scripting
Tools: Docker, Kubernetes, Shell, Unix, Linux, Git, GNS3, Wireshark, Oracle VirtualBox, ArgoCD, Prometheus, Grafana
Database Technologies: Teradata, PostgreSQL, MySQL, Redis, Amazon DynamoDB , Apache Hadoop
Cloud Technologies: AWS, GCP
Coursework: Machine Learning, Cloud Computing, Data Structures and Algorithms, Database Systems, Information Security, Operating Systems, Computer Architecture, Mobile Device Development, Object-Oriented Design, Database Management Systems, Computer Networks, Computer Communication System

Experience

Instructional Student Assistant - Information Security Aug. 2023 – June. 2024
SJSU *San Jose, CA*
- Mentored students on course subjects and final projects to enhance their understanding and academic performance.
- Evaluated students' assignments and papers, providing feedback as needed.
- Led weekly discussion sessions to clarify complex topics, reinforce key concepts, and promote collaborative learning.

DevOps/SRE Engineer Sep. 2021 – Jul. 2022
Jubo Health Technologies Inc *Taipei, Taiwan*
- Redesigned a Go-based RESTful API, achieving a **40%** reduction in response time through SQL statement optimization and algorithm enhancements.
- Refactored and developed distributed backend server to enhance scalability, maintainability, and testability by removing state information and implementing interface segregation.
- Developed and optimized CI/CD pipelines to streamline application deployment and improve development workflows by leveraging GitLab CI/CD, Google Container Registry (GCR), and ArgoCD.
- Implemented service dashboards using Grafana and Prometheus, achieving a **30%** improvement in system uptime by enhancing metrics visibility and implementing proactive alert handling.
- Maintained Kubernetes clusters and provided Site Reliability Engineering (SRE) support by proficiently debugging and resolving system issues, ensuring high availability and performance.

Software Engineer Jan. 2021 – Aug. 2021
Skyline Worldwide Limited *Taipei, Taiwan*
- Developed mobile game backend services to achieve high concurrency and scalability using Netty's asynchronous I/O model.
- Contributed to team documentation to improve clarity and knowledge sharing.

Software Engineer Nov. 2018 – May. 2020
Teradata Corporation *San Deigo, CA*
- Analyzed source code to determine the root cause of defects in Teradata Database software and completed the DR (Discrepancy Report).
- Implemented software fixes, performed tests, and merged fixes into the code base for software defects reported in DR or JIRA.
- Collaborated with internal and external organizations during on-call periods to resolve issues promptly.
- Assisted the customer support engineer team in achieving a **10%** reduction in average resolution time for customer incidents by providing expert knowledge support on Teradata database and conducting thorough investigations of source code to verify bugs.

Projects

Network Routing and Spectrum Allocation Problem | *Python, Gymnasium*
- Efficiently solving the Routing and Spectrum Allocation (RSA) problem to maximize network resource utilization and optimize quality of service in optical communication networks by creating a gymnasium environment and employing reinforcement learning algorithms.

Publications

Multimodal Techniques for Malware Classification 2025
- Jonathan Jiang, Mark Stamp
- *arXiv preprint*, arXiv:2501.10956