Rohith Rokkam

B.S. Computer Science (Honors) and Mathematics
Stony Brook University, Spring 2019, Summa Cum Laude (GPA: 3.92)
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Experience

Software Engineering MTS, VizQL Server – Tableau (Salesforce) **01/20 - Present**

- Propagating exception metadata across the Tableau monolith to identify and prioritize SLA-impacting defects
- Enabled client teams to debug cross-language performance issues through contributions to Tableau's C++/Java telemetry library
- Set up Snowflake data sources using ETLs written in Apache Flink and Kafka and created Tableau visualizations using those data sources to improve service observability
- Identified and triaged key sources of customer dissatisfaction in Tableau Online using Tableau and Splunk visualizations tracking golden signals and other metrics
- As scrum master, organized scrum backlog and prioritized tasks to improve availability of VizQL Server in Tableau Online from 99.5% to 99.9%.
- Wrote design documents and technical specifications for automation to automatically detect and triage SLA-impacting defects across the Analytics org
- Removed a class of high-visibility defects in Tableau Public by unifying VizQL Server health checks, enabling the server to consistently self-heal
- Identified and helped debug critical shipblocking production issues using Splunk, Tableau, and New Relic

Research and Development Intern – Sandia National Laboratories **06/18 - 08/19**

- Enabled a client team to solve constrained-optimization problems of interest by adding a parallelization layer for a C++ branch-and-bound solver framework.
- Wrote dynamic MPI code suitable for use in high-performance computing scenarios.

Teaching Assistant – Theory of Computation **Spring 2018/19**

- Wrote and graded homework and exams on automata, languages, Turing machines, and complexity
- Lectured the class as a substitute and held regular office hours

Teaching Assistant – Foundations of Computer Science **Spring 2017**

- Helped a 25-person weekly recitation section learn discrete math, logic, and proofs

Selected Projects

Peer-to-peer Filesystem

- Wrote an Airdrop-like P2P service in Python using FUSE and a custom protocol
- Made a multithreaded bootstrap server to host the network

Packet Sniffer

- Created a packet sniffer using raw network sockets in Python
- Added output filters for protocols including TCP, UDP, IP, Ethernet, and DNS

Dynamic Memory Allocator

- Developed a memory allocation library in C using a segmented free-list
- Implemented several optimizations from glibc malloc

Bash-like Shell

- Made a shell in C with output redirection, piping, and background job support
- Carefully considered race conditions and handled asynchronous UNIX signals

Organizations

SBU Algorithms Lab

- Discussed algorithms, discrete math, and data structures (ex: B-trees, Bloom filters, DFT)

SBU Undergrad Algorithms Reading Group

- Presented algorithms, data structures, and solved logic puzzles of interest

Selected Coursework

- Graduate: Algorithms (audited Master's and Ph.D. sections), Probability Theory, Algebra
- Undergraduate: Operating Systems, Linear Algebra, Network Programming, Machine Learning
- Personal: Category Theory for Programmers, Information Theory