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 - Tableau (Salesforce)　　　　　　　　　　　**01/20 - Present**
- Prometheus
- Log4J
- Hygiene: preflight performance, prep performance, service upgrades
- logicasserts and debugasserts
- 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
- As scrum lead, organized 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 organization
- 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

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)

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