

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

- Enabled embedding of Tableau Prep into Salesforce by allowing clients to track resource usage separately
- Coordinated and led cross-team efforts to remove insecure dependencies from the Tableau Prep dependency tree, and championed system improvements to simplify future security patching
- Designed and implemented a rework of the Tableau error-asserting framework to replace frequently misused APIs with hygienic versions and sensible defaults
- Improved performance of the preflight CI pipeline using profiling tools, preventing hangs on large PRs (100+ files) and reducing time taken by over 50% on small PRs.
- Wrote design documents and technical specifications for an automation tool that automatically detects and triages SLA-impacting defects across the Analytics organization
- Helped client teams 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 drive improvements to service observability
- As scrum lead, identified, triaged, and prioritized bugs causing customer-facing errors to drive availability of VizQL Server in Tableau Online from 99.5% to 99.9%.
- Unified VizQL Server health checks, removing a class of high-visibility defects in Tableau Public by enabling the server to consistently self-heal
- Found and triaged key sources of customer dissatisfaction in Tableau Online using Tableau and Splunk visualizations tracking metrics including golden signals
- Identified and debugged 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 to 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

- Developed 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

- Wrote a memory allocation library in C using a segmented free-list and 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