Rohith Rokkam

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

Software Engineering SMTS - Salesforce / Tableau Software　　　　　　　**05/22 - Present**
Software Engineering MTS - Salesforce / Tableau Software　　　　　　　**01/20 - 04/22**
- 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 and reducing time taken by over 50% on small PRs
- Coordinated cross-team efforts to remove insecure dependencies from Tableau Prep's Gradle builds
- Added functionality to allow client teams' usage of Tableau Prep to be individually tracked
- Wrote a technical specification for and prototyped a tool that detects and triages SLA-impacting defects for Tableau services using httpd logs
- Set up Snowflake data sources using ETLs written in Apache Flink and Kafka and created Tableau visualizations using those data sources to prioritize 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
- Contributed features for Tableau's telemetry/resource tracing library aimed at helping developers debug cross-language performance issues
- Identified, triaged, debugged, and fixed critical shipblocking production defects using Splunk, Tableau, and New Relic

Research and Development Intern - Sandia National Laboratories　　　　　　　**06/18 - 08/19**
- Implemented a parallelization layer for a C++ branch-and-bound based constrained-optimization solver framework.
- Collaborated with researchers to design and implement new features at supercomputing scale
- Wrote dynamic MPI code for 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 network in Python using FUSE, hosted on a multithreaded bootstrap server

Packet Sniffer
- Created a packet sniffer using raw sockets in Python that parsed 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 that supports output redirection, piping, signal handling, and background job support

Other Education

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