# 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 common errors (current project)
- Contributed to latency tracking for Tableau's C++/Java telemetry library
- Created ETLs to stream product logs to Snowflake using Apache Flink and Kafka
- Drove backlog prioritization and work intake as team scrum-master; ran standup and Scrum meetings
- Created Tableau and Splunk dashboards to monitor and prioritize improvements to golden signals and secondary metrics
- Wrote design documents and technical specifications for feature-level work
- Debugged production issues using Splunk, Tableau, and New Relic

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

- Added a parallelization layer for a C++ branch-and-bound solver framework
- Collaborated with researchers to design and implement new features
- Wrote dynamic and performant MPI code for use in large computer clusters

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

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

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

- Helped a 100+ person class learn discrete math, logic, and proofs
- Instructed a 25-person weekly recitation section

## 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: Bloom filters, DFT, HyperLogLog)

**SBU Go Club – Secretary**

- Hosted open Go tournaments with 40+ entrants; taught new players rules & strategy

**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, Systems Fundamentals, Theory of Computation, Machine Learning, Probability and Statistics for Data Science
- Personal: Category Theory for Programmers, Information Theory