

Anirudh Sarma

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY

PHD IN COMPUTER SCIENCE
Starts Aug 2020 | Atlanta, GA

GEORGIA INSTITUTE OF TECHNOLOGY

MS IN COMPUTER SCIENCE
May 2020 | Atlanta, GA
Cum. GPA: **3.92 / 4.0**

MANIPAL INSTITUTE OF TECHNOLOGY

BTECH IN COMPUTER SCIENCE
Magna Cum Laude
Cum. GPA: **9.32 / 10.0**

COURSEWORK

GRADUATE

Advanced Operating Systems
Computer Networks
System Issues in Cloud Computing
Graduate Algorithms

UNDERGRADUATE

Operating Systems
Network Protocols
Distributed Computing
Discrete Mathematics
(Graph & Group Theory)

SKILLS

PROGRAMMING

Over 5000 lines:
C • C++ • Shell • Python
Familiar:
Perl • JavaScript • Java • PHP
• Assembly • Android • SQL

TEACHING

ADVANCED OPERATING SYSTEMS

Aug 2019 – Present | Head TA
Jan 2019 – May 2019 | TA

LINKS

LinkedIn:// [anirudhsarma](#)
Github:// [rudh24](#)

EXPERIENCE

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BLOOMBERG

| SOFTWARE ENGINEERING INTERN | TRADING AND ANALYTICS
June 2020 – Aug 2020 | NY

- **Project:** Real-Time aggregation via Kafka Stream Processing

APPLE | SOFTWARE ENGINEERING INTERN | ACCESSIBILITY

May 2019 – Aug 2019 | Cupertino, CA

- **Project:** MacOS Accessibility UI Crawler

CITRIX | SOFTWARE ENGINEER | CLOUD & NETWORKING GROUP

July 2016 – June 2018 | Bengaluru, India

- Contributed as a REST API and SDK developer on the NetScaler configuration infrastructure team

SANDISK | SOFTWARE ENGINEERING INTERN

Jun 2015 – Jul 2015 | Bengaluru, India

- **Project:** USB Binary firmware editor application
- **Project:** Automatic USB file organizer

RESEARCH

EMBEDDED PERVASIVE LAB | GRADUATE STUDENT RESEARCHER

Jan 2019 – Present | Atlanta, GA

- Working with **Harshit Gupta** and **Dr. Umakishore Ramachandran** to create a programming framework for the edge that caters to situation aware and latency sensitive IOT applications
- Developing a model that allows deploying multiple resource scheduler in a scalable and efficient manner
- Designed and Implemented a centralized resource manager for the edge nodes with resource checkpoints to allow rollbacks on failed resource allocations

PROJECTS

PUBLISH-SUBSCRIBE SYSTEMS EVALUATION FOR COLLABORATIVE AR IN AUTONOMOUS VEHICLES

Evaluated and benchmarked existing pub-sub systems as candidates for data management to share environmental data to augment vision in autonomous vehicles

Tech stack: Kafka, Pulsar, Java, OpenMessagingBenchmark

MAPREDUCE INFRASTRUCTURE

Implemented the *MapReduce: Simplified Data Processing on Large Clusters* Google paper using gRPC for distributed process communication, ZooKeeper for reliability, and Azure blob storage for data management

Tech stack: gRPC, C++, Azure, ZooKeeper

SDN PROACTIVE AND REACTIVE LOADBALANCER

Developed a load balancer using the RYU controller on a pre-defined Mininet topology to generate and push rules to the OpenVSwitches using the RYU python APIs. New rules were generated based on network statistics recorded periodically (monitored by the controller)

Tech stack: Python, RYU SDN framework

DETAILS

BLOOMBERG | SOFTWARE ENGINEERING INTERN | TRADING AND ANALYTICS

June 2020 - Aug 2020 | NY

- Developed a Kafka Streaming Application to compute real-time aggregates of Fixed Income Liquidities
 - Built a QC infrastructure for correctness and benchmarking against current service oriented architecture

APPLE | SOFTWARE ENGINEERING INTERN | ACCESSIBILITY

May 2019 - Aug 2019 | Cupertino, CA

- Designed and built an all-purpose application agnostic crawler to crawl through native macOS applications to identify UI defects. The project consisted of:
 - A Generic and extensible design to enable crawling for user specified issues with heuristics to observe and identify changes in UI layouts
 - Smart storage of UI flows, to allow easy reproduction of the desired state

CITRIX | SOFTWARE ENGINEER | CLOUD & NETWORKING GROUP

July 2016 – June 2018 | Bengaluru, India

- Contributed as a developer on the NetScaler configuration infrastructure team. Helped reduce the bug backlog by **40%**
- Refactored NetScaler APIs to improve code reuse, readability and security
- Designed and developed a test framework to improve the NetScaler REST API codebase coverage by **25%**

SANDISK | SOFTWARE ENGINEERING INTERN

Jun 2015 – Jul 2015 | Bengaluru, India

- Developed a windows application for editing binary firmware configuration files
- Created an application to automatically organize files based on file types, content and metadata within a plugged in USB drive

AWARDS

THE DONALD V. JACKSON FELLOWSHIP 2020 | GEORGIA TECH, ATLANTA, GA