

SKILLS AND INTEREST

- **Languages:** Java, React, C, C++, Spring boot, Python, LLVM
- **Interests:** Database Internals, Back-end development, Linux containers, Systems programming
- **Awards:** Won fastest query processor in CSE562, Best MS Researcher both from University at buffalo

EXPERIENCE

- **Oracle Corporation** Redwood City, CA
Senior database kernel engineer, Oracle DB June-2021 - current
 - **Database sharding - native replication (C, C++, Raft consensus):**
 - * writing / managing the IO and serialization, coordination of shards for Raft based sharded database
- **Amazon Services Inc** Seattle, WA
Software Development Engineer, Amazon Devices March 2020 - June 2021
 - **Return processing and management for Amazon devices - (Java, Springboot, React)):**
 - * Responsible for redesigning and migrating an externally facing micro service containing 17 API's optimizing database fetches and API latency(average 20% across all API's)
 - * Deployed a new return workflow, which involved training workforce, debugging fixing release issues
 - Software Development Engineer Intern, Amazon Devices* Summer 2019
 - **Vision and Machine Learning based Screening- (Computer Vision, ML, Java, Spring, Angular):**
 - * Tools to improve flow in warehouses. The tools created by me improved to rate of dispatches by 10%
 - * Process return screening in warehouses with computer vision and machine learning. Accrately 92%
- **University at Buffalo** Buffalo, NY
Research Programmer - UB-ANC - Drones Lab Spring 2019
 - **Drones navigation system - EMANE Integration (EMANE, NS3, LXC Containers):**
 - * Modified UB's inhouse drone simulation to support AFRL's EMANE network simulator.
 - * Support integration with LXC containers that would facilitate Distributed simulation.
- **Zoho Corporation** Chennai, IN
Member technical Staff - Zoho labs - Research and Development May 2017 - May 2018
 - **Cstore -FDW (Columnar storages ,OLAP systems):**
 - * Modified CITUSDB CStore FDW to accommodate in-memory caching, deletes and JIT executor.
 - * The JIT executor improved query performance by a factor of 8 - 10 on OLAP queries of 30 million rows.
 - * Deployed Cstore system backing kafka/mysql across 30 clusters.
 - Member Technical Staff Intern - Zoho labs - Research and Development* Jan 2017 - Mar 2018
 - **In Memory Foreign Data Wrapper For PostgreSQL (Database Design, C with LLVM, codegen API):**
 - * Designed and implemented the storage engine and executor as a foreign data wrapper for postgresQL.
 - * Successfully implemented lock free indexing(BW tree) and write-ahead logging.
- **Sri Ramakrishna Engineering College - Centre For Innovation** Coimbatore, India
Undergraduate Research / Student Chairman Aug. 2015 - Dec. 2016
 - **Fleet Management System -(Android, AngularJS-2, Redis, Embedded C Programming):**
 - * Led a team of 4 people to Design and implement hardware and software for the fleet management system.
 - * Detect irregular driving patterns and approximate time of arrival for institutional vehicles.

EDUCATION

- **University at Buffalo(State University of New York)** Buffalo, NY
Master of Science in Computer Science and Engineering Aug. 2018 - Dec. 2019
 - Coursework: Analysis of algorithms, Computer vision and image processing, Operating systems, Distributed System, Database Systems, Malware Detection using static analysis
- **Sri Ramakrishna Engineering College** Coimbatore, India
Bachelor of Engineering in Computer Science and Engineering. Aug. 2013 - July. 2017