

Archit Mishra

github.com/armishra · [linkedin.com/in/armishra97](https://www.linkedin.com/in/armishra97) · archit72@gmail.com · 510-449-9633

Education

- June 2020 **M.S. Computer Science**, UC San Diego.
○ Accelerated 5 year BS/MS.
- March 2019 **B.S. Computer Science**, UC San Diego, GPA: 3.78.
○ Honors/Awards: Tau Beta Pi Engineering Honors Society, Provost Honors

Experience

- Jun-Sep 2018 **Facebook**, Software Engineering Intern - Wormhole Pub/Sub Team.
○ Reduced subscriber host failure domain by up to 3 times by creating a thrift server API to narrow failure metrics to single subscriptions and act on a subscription level.
○ Improved subscriber SLA guarantee by up to 20% by implementing stuck subscriber thread detection.
○ Deployed framework for remote procedure call on subscriber hosts to global data centers.
- Jun-Sep 2017 **Facebook**, Software Engineering Intern - Database Engineering Team.
○ Automated a previously manual process of recovering auto increment values by implementing crash safety into MyRocks server.
○ Improved deadlocked transaction handling by building transaction deadlock detection and tracking in RocksDB and MyRocks.
○ Sped up table metadata queries by over 9 times by upgrading MySQL data dictionary format for auto increment column value.
- Jun-Aug 2016 **Excelfore**, Software Development Intern.
○ Integrated vehicle IOT services with a low latency video camera stream.
○ Sped up face detection algorithm by 200% by implementing a prediction algorithm on a 30 MB/s video streaming pipeline.
○ Improved lane tracking application by minimizing calculations done per lane candidate leading to a 70% speed up.
- 2015-Present **UCSD CSE Department**, CS Tutor.
○ Undergraduate Tutor for:
 - Computer Architecture [CSE 141]
 - Intro & Advanced Data Structures [CSE 12, 100]
 - Software Engineering [CSE 110]
○ Most recently, assisted students in course on MIPS ISA, CPU microarchitecture designs, cache hierarchy, and memory management.

Projects

- Fall 2017 **Openflow Mininet QOS hack**, C, C++.
○ Implemented token bucket rate limiting into a simple IP forwarding router built on openflow software defined network architecture running on Stanford's mininet emulator.
○ Designed a bandwidth allocation algorithm in order to provide differentiated service handling for network packets based on Quality of Service.
○ Constructed config based firewall to filter packets by CIDR addresses.
- Winter 2016 **Distributed File System**, Java.
○ Implemented distributed systems mechanisms such as replication and leadership election.
○ Designed algorithm to chunk files in parallel and send data over TCP sockets to slaves intended to replicate file chunks.
○ Optimized read latency by implementing an in-memory cache for hot chunks.

Skills/Languages

Skills.

- Distributed Systems
- Databases
- Networks
- Storage

Programming Languages.

- C/C++
- Python
- Java
- SQL