



# Krishna Rajendram Bashyam

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## EDUCATION

### Arizona State University

Master of Science in Computer Science

Tempe, AZ

Aug 2021 - May 2023

**Coursework:** Cloud computing, Distributed database systems, DBMS implementation, Foundations of algorithms

### National Institute of Technology Trichy

Bachelor of Technology in Computer Science and Engineering

Tiruchirappalli, India

Jul 2014 - Jun 2018

**Coursework:** Data structures, Operating systems, Design of parallel algorithms, Big data analytics, Advanced DBMS

## EXPERIENCE

### Compass

Software Engineer II

Hyderabad, India

Nov 2020 - July 2021

- Improved startup time by 8x using Datadog metrics and optimized performance of the android app using Perfetto and Systrace.
- Designed and built contacts and collection sharing features in the android app, leading a team of 4 developers.
- Increased number of active users by 3x by ensuring 99.9% crash free user sessions using custom exception handlers.
- Developed an engine for server-driven UI using Jetpack compose to deploy features without requiring a Play Store release.

### Arcesium (D.E. Shaw)

Senior Software Engineer

Hyderabad, India

Jan 2020 - Oct 2020

- Redesigned monolithic pricing applications and infra to active-active architecture using Kafka and containerization, improving processing performance by 4x.
- Improved throughput for downstream applications by developing bulk APIs for London Inter-Bank Offered Rate (LIBOR) Cessation.

Software Engineer

July 2018 - Dec 2019

- Snapped and persisted prices for >10k securities/day by developing pricing applications using computational models.
- Reduced costs by \$150k/yr by onboarding 10+ clients to a quantitative finance platform built using Kotlin, Spring, AWS S3, JNI.
- Added high performance communication and streaming support to an in-house service generation framework by building a Gradle plugin to integrate gRPC and protobuf.

Software Engineer Intern

May 2017 - July 2017

- Automated price uploads by implementing a web-based self-service tool which reduced upload time by 75%.
- Parsed and persisted price files by developing a configurable parser using Java, Apache POI and ReactJS.

### Delta Force

Lead Student Developer

Tiruchirappalli, India

Aug 2015 - May 2018

- Led a team of 8 developers to build a reusable android app (5k+ downloads) for 3 college fests - [Play store link](#)
- Implemented fest schedule, virtual assistant, AR games and navigation using RxJava, Dagger2, Retrofit, FCM, TravisCI.

## TECHNICAL SKILLS

- **Programming:** Kotlin, Java, SQL, NoSQL, C, C++, Python, JavaScript, HTML, CSS
- **Frameworks and Tools:** Spring, Gradle, Docker, Kubernetes, AWS, Spark, Kafka, HDFS, Redis, MongoDB, Android, ReactJS

## PROJECTS

### Repair pipelining for Clay-Coded Storage | [Code](#) | [Paper](#)

Published, *IEEEExplore*, *COMSNETS*, 2021

- Proposed and implemented repair pipelining for clay codes to improve performance by 70% and reduce bandwidth by 4x.

### Eclipse Vert.x | [Code](#)

Open source

- Added support for http2 web push and link preload - performance techniques that help in loading resources preemptively.
- Added configurable suffix for compressed files - Send responses without compressing already compressed content.

### Raft Consensus | [Code](#)

- Built a modular raft consensus protocol interface and spring, vert.x, kubernetes implementations.

### Distributed File Sharing | [Code](#)

- Distributed file sharing using cluster of servers for indexing and upload restrictions and websocket clients to handle chunked files.
- Technologies used: Vert.x, Apache Ignite as cluster manager and data store, WebRTC for P2P transfer of chunks.

## ACHIEVEMENTS

- **Winners** among 200+ teams, *inGenius Hackathon '16*, built an app for sharing wifi credentials using sound waves.
- **Top 5** among 500+ teams, *inOut Hackathon '17*, built a Distributed computing mobile framework analogous to AWS Lambda
- **Runners up** among 100+ teams, *Sangam '16*, adjudged by Honeywell, built a Fall detector and client using OpenCV and RTMP.
- **480+ stars** on Github, Built [Popview Android](#), a library for pop and trackback animation on any android view.