

Rishit Yogesh Bafna

Tempe, AZ | 602-815-2575 | bafnarishit@gmail.com | linkedin.com/in/rishit-bafna | github.com/rbafna1978

EDUCATION

Arizona State University

Master of Science in Computer Science

Tempe, AZ

Jan 2026 – May 2027

Arizona State University

Bachelor of Science in Computer Science (Software Engineering), cum laude — GPA: 3.4

Tempe, AZ

Dec 2025

- **Honors:** New American University Scholar (4 years), Dean's List (multiple semesters)
- **Relevant Coursework:** Operating Systems, Distributed Software Development, Machine Learning, Software Analysis & Design, Programming Languages

PROJECTS

Distributed Key-Value Store | Java, Raft Consensus, gRPC, Protocol Buffers

2026

- Built fault-tolerant distributed database implementing Raft consensus with leader election and log replication across 5-node cluster, verified through chaos testing with automatic failover during leader crashes.
- Designed gRPC client-server protocol with REST API for SET/GET/DELETE operations, achieving sub-5ms latency and correct leader redirection across node failures.

GitHub Dependency Visualizer | React, TypeScript, Node.js, Cytoscape.js

2026

- Built full-stack application analyzing GitHub repositories to visualize dependency graphs with 500+ nodes, detecting security vulnerabilities through OSV API and identifying circular dependencies.
- Implemented force-directed graph visualization with filtering and search supporting 3 package ecosystems (npm, PyPI, Go), reducing manual dependency analysis time by 90%.

Real-Time Collaborative Code Editor | React, WebSockets, CRDT, Redis

2025–2026

- Developed collaborative editing platform supporting 20+ concurrent users per document using Conflict-free Replicated Data Types for automatic conflict resolution and eventual consistency.
- Built WebSocket server with Redis pub/sub handling 200+ concurrent connections with sub-100ms sync latency and automatic reconnection on network failures.

Multithreaded HTTP Server | C++, POSIX Sockets, Thread Pool

2024

- Built HTTP/1.1 web server from scratch using POSIX sockets with 4-thread pool architecture supporting 100+ concurrent connections and persistent keep-alive sessions.
- Implemented work-stealing queue for load balancing and benchmarked 5K+ requests/sec throughput with ApacheBench, achieving efficient request handling through lock-free parsing.

EXPERIENCE

Software Engineering Intern

Aug 2025 – Dec 2025

J. Miller Custom Cues

Tempe, AZ

- Shipped production 3D configurator using Three.js and React with 3-person team, reducing customer design revisions by 35% through real-time photorealistic rendering with WebGL pipeline.
- Built PostgreSQL REST API with Stripe integration processing 100+ customer orders, implementing transactional cart management and achieving sub-200ms response times in production.

Software Engineering Intern

May 2025 – Jul 2025

Winssoft Technologies India Pvt. Ltd.

Mumbai, India

- Optimized SQL queries processing 200K+ records by implementing composite indexes and materialized views, reducing analytics dashboard load time from 8 seconds to under 2 seconds.
- Refactored payment microservice handling 5K+ daily transactions, adding idempotency checks and database constraints to eliminate duplicate transaction bugs.

SKILLS

Languages: Java, Python, JavaScript, TypeScript, C++, C, SQL

Frontend: React, TypeScript, HTML/CSS, Chrome Extensions

Backend: Node.js, FastAPI, Express.js, gRPC, WebSockets, REST APIs

Databases: PostgreSQL, MySQL, MongoDB, Redis

Tools & Platforms: Git, Docker, Linux, AWS (S3, EC2), JMeter