

Adnan Mazharuddin Shaikh

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EDUCATION

University of Southern California <i>Masters in Computer Science</i>	Aug 2024 – May 2026
Walchand Institute of Technology <i>Bachelors in Computer Science & Engineering</i>	Oct 2018 – Mar 2022

EXPERIENCE

Software Developer Easley-Dunn Productions, Inc. MGI	Jun 2026 – Present <i>Los Angeles, CA</i>
- Standardized player identity via a shared <code>PlayerIdProvider</code>, fixing 4 defects in persistence, reset, navigation, and telemetry. - Authored 87 Unity batch-mode test scenarios covering purchase, progression, and reset flows, catching regressions pre-merge.	
Graduate Teaching Assistant USC Viterbi School of Engineering USC Games	Aug 2025 – May 2026 <i>Los Angeles, CA</i>
- Mentored 55+ students in Unreal, Unity, Git LFS, and version control workflows for USC's AGP Advanced Game Project course. - Engineered a Unity URP HLSL shader that reveals 3D meshes pixel-by-pixel using quantized noise and dithered alpha clipping.	
Software Engineer Intern Lumina AI Health Institute ParkSense.ai	May 2025 – Aug 2025 <i>Marina del Rey, CA</i>
- Deployed an AI web app with Next.js, FastAPI, and MongoDB on GCP, achieving 95% accuracy on 2k+ spots at 99.9% uptime. - Integrated Reolink IP cameras via RTSP for live stream and a concurrent WebRTC transcoder that reduced the latency by 3x.	
Software Development Engineer Persistent Systems IndusInd Insurance	Jun 2022 – Jul 2024 <i>Pune, India</i>
- Scaled a React.js/.NET app that cut administrative claims paperwork in half and improved load times by 30% for 1M+ users. - Migrated 2 million production data rows, cutting MSSQL query times from 2 minutes to 8 seconds and saving \$1.7M annually. - Coded a predictive model that identified high-risk users 6 months early, enabling 15% decrease in preventable insurance claims.	

PROJECTS

Squad Space <i>Java, Spring Boot, React, TypeScript, PostgreSQL, WebRTC</i>	Aug 2026 – Present
- Built 7 real-time collaboration features: rooms, chat, video calls, screen sharing, coding, and whiteboarding for 8-user rooms. - Secured 58 REST endpoints using JWTs, rotating refresh tokens, Google OAuth, role-based authorization, and sesh revocation. - Containerized a service stack of React, Caddy, Coturn via a 6-job CI/CD pipeline with automated health checks and rollback.	
Raft-CURP Distributed Key-Value Store <i>C++, gRPC</i>	Feb 2026 – Apr 2026
- Crafted a 5 node Raft KV store with a 4-of-5 witness superquorum CURP fast path, using RIFL-based request deduplication. - Reduced median non-conflicting write latency by 50% via 1-RTT fast path, validating correctness under 10K concurrent writes. - Implemented leader-crash recovery via witness-state replay and RIFL deduplication, passing 50+ tests and fault-injection cases.	
BBR-like Congestion Control <i>Python, Bash, Mininet</i>	Aug 2025 – Dec 2025
- Designed a network protocol implementing BBR congestion control with Pacing, Startup, ProbeBW, and ProbeRTT states. - Streamlined BGP routing logic and OSPF path selection algorithms to optimize network traffic flow & bandwidth utilization.	
Weenix Operating System <i>C, x86 QEMU</i>	Jan 2025 – May 2025
- Developed a Linux kernel in C with process scheduling, virtualization, system calls, and memory management for x86_32 QEMU. - Demonstrated low-level systems programming via multithreading, S5FS/RAMFS, and stress-testing with 10K+ task switches.	

OPEN-SOURCE CONTRIBUTIONS

AgentTrust CA2A PR #80 <i>Python</i>	Aug 2026 – Sep 2026
Added 3 core tests for multi-hop delegation, validating scope attenuation, provenance integrity, and subject-credential binding.	
Pi-hole PR #6530 PR #6531 <i>Bash</i>	Feb 2026 – Aug 2026
Deleted deprecated <code>arpflush</code> CLI and misleading <code>SetWebPassword</code> logic, cutting legacy code preserving secure passwd entry.	
DiceDB PR #1680 <i>Go</i>	Apr 2025 – May 2025
Merged a fix guarding client-ID assignment, handshake mode updates, and watcher notifications preventing inconsistent state.	

SKILLS

Languages and Databases: SQL, Python, Java, JavaScript, TypeScript, Go, C#, C++, PostgreSQL, MongoDB, Redis, Bash, C
Web and App Development: Langchain, Qdrant, Node.js, Next.js, Spring Boot, REST, GraphQL, FastAPI, S3, Firebase, SOAP
Cloud and DevOps: AWS, Azure, GCP, Docker, Kubernetes, Terraform, Jenkins, Git, Linux, Grafana, Prometheus, IAM, Unix
AI and ML: PyTorch, TensorFlow, Scikit-learn, Keras, Pandas, Numpy, OpenCV, Jupyter, spaCy, NLTK, Scipy, Matplotlib, Pillow
Networking and Security: Kafka, gRPC, WebSockets, RabbitMQ, Nginx, BGP, TLS/SSL, IP, QUIC, SSH, Wireshark, iptables
Tools: Jira, Bitbucket, Selenium, Chrome DevTools, Visual Studio Code, Slack, WebAssembly, CMake, GDB, Vim, GNU Emacs