Aayush Kumar

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Education

Arizona State University   **Dec 2026**
Master of Computer Science, Big Data Systems   *Online*
- Accelerated 3.5 + 1 concurrent program
- Graduate coursework: Mobile Computing, Data Visualization, Human Computer Interaction, AI Agents & Agentic AI

Arizona State University   **Dec 2025**
Bachelor of Computer Science   *Tempe, AZ*
- Dean's List — **GPA: 3.73**
- Courses: AI & Machine Learning, Operating Systems, Computer Networks, Cloud Computing, Data Structures & Algorithms, Database Systems

Experience

Insurity   **Oct 2025 – Present**
Associate Developer Intern (AI Solutions)   *Remote*
- Prototyped internal AI assistants over policy/claims knowledge using **FastAPI** + **pgvector** retrieval with **Bedrock/OpenAI** Q&A; containerized with **Docker** and deployed to **AWS ECS Fargate**.
- Built an ingestion pipeline from **S3** (PDF/HTML) with metadata extraction and embeddings, added **guardrails** and an evaluation harness (answer-hit & latency) to compare prompts/models.
- Hardened services with **JWT**/**RBAC**, secrets via **AWS Secrets Manager**, **IAM** least-privilege roles, and CI/CD with **GitHub Actions**; instrumented **CloudWatch** logs/alarms for on-call readiness.

The Net VR   **Aug 2025 – Oct 2025**
Software Engineering Intern   *Remote*
- Shipped cross-platform **VR & mobile** features using **Unity (C#)** and **React Native**; validated in a closed beta with **100+** users and iterated from telemetry/feedback to harden UX and reliability.
- Built an **AI Companion** service (**Flask** REST APIs + **NoSQL**, WebSocket bridge) enabling real-time in-app assistance and adaptive behaviors, increasing session engagement and feature adoption.
- Dockerized backend into **microservices**, standardized local envs and CI checks, and optimized Unity frame timing (object pooling, async I/O), cutting integration time from **days** to **hours** and reducing latency by **15%**.

Projects

Operational Dashboard for Small Businesses | *Source Code*   **ReactJS | Spring Boot | PostgreSQL**
- Developed a full-stack dashboard (ReactJS, Spring Boot, PostgreSQL) to process sales data and generate 30-day forecasts, improving trend detection accuracy by **25%**.

AI InvestMate | *Live* | *Source Code*   **NextJS | TypeScript | Supabase**
- Engineered a full-stack marketplace app (NextJS, TypeScript, Supabase) used by **50+ students** in beta to simulate investments, boosting engagement in financial literacy by **40%**.

Safety Guardian | *Source Code*   **AWS Kinesis | Glue | Redshift**
- Designed an ETL pipeline with CI/CD and **75% test coverage**, reliably processing **10K+ hazard events daily** in real time.

Certifications

Career Essentials in Generative AI (Microsoft + LinkedIn) | *Link*   **Oct 2025**

MLOps — Machine Learning Operations Specialization (Duke University) | *Link*   **Jul 2024**

Developing Applications with Google Cloud (Google Cloud / Coursera) | *Link*   **Jun 2024**

Technical Skills

Languages: Python, Java, TypeScript/JavaScript, SQL, Go, C#

Developer Tools: AWS, Postman, PowerBI, Git, Azure, Docker, Jira, Tableau

Libraries/Frameworks: FastAPI, Django/DRF, Spring Boot, React, Next.js, React Native, Node/Express, PostgreSQL

Security: OAuth2/JWT, RBAC, 2FA (TOTP), CSP/CSRF, AWS Secrets Manager, IAM (least-privilege), VPC Security Groups