Divyansh Chandarana

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Summary

Software Engineer experienced in designing and developing scalable backend systems and distributed services on cloud infrastructure. Adept in end-to-end software development from architecture and implementation to testing and deployment, with a focus on reliability, performance, and operational excellence. Passionate about building impactful, production-ready software that improves experiences at global scale.

Education

Arizona State University **GPA: 3.99 / 4.00**

Bachelor of Science in Computer Science ***Jan 2023 – May 2026***

Technical Skills

Languages & Frameworks: Python, Java, C++, Go, PHP, TypeScript, FastAPI, Flask, React, Node.js.

Cloud & Infrastructure: AWS (EC2, ECS Fargate, Lambda, S3, CloudWatch), Docker, Kubernetes, Redis.

Core Competencies: Backend Development, Distributed Systems, Microservices, API Architecture, Data Structures & Algorithms, Object-Oriented Design, Performance Optimization.

Practices: Agile SDLC, CI/CD Automation, Testing & Debugging, Code Review, Monitoring, Problem Solving, System Design.

Engineering Experience

Software Development Engineering Intern ***May 2025 – Aug 2025***

Amazon *Tempe, AZ*

- Designed and deployed a **distributed compliance API service** processing **250K+ daily requests** across Amazon's global marketplaces, enabling immediate policy enforcement through a new token-based architecture.
- Delivered **zero-downtime blue-green deployments** with automated rollout validation, integrated monitoring hooks, and health-based routing, ensuring seamless transitions and rollback safety during version upgrades.
- Optimized backend throughput by **eliminating a legacy table dependency**, simplifying request flows and reducing p99 latency by **17.8%**, improving overall reliability and operational performance.
- Collaborated with senior engineers on **design reviews, on-call debugging, and system integration plans**, ensuring fault tolerance, maintainability, and security compliance across multi-region services.

Research Analyst (Software Engineering) ***Jan 2024 – Present***

Arizona State University — Learning Enterprise *Tempe, AZ*

- Designed and deployed **software infrastructure** supporting AI-driven learning platforms serving thousands of users, focusing on scalability, reliability, and accessibility.
- Contributed to **AI Grader**, a FastAPI microservice integrating Canvas LMS, HubSpot, and Airtable APIs with async queues and **round-robin load balancing**, enabling **automated feedback pipelines** and cutting manual grading effort by **70%**.
- Developed an **AI-driven Market Intelligence platform** using Python and FastAPI to orchestrate **RESTful API integrations** (SerpAPI, Coursera, Lightcast, Google Trends, ChatGPT API), automating data collection and analysis workflows, and reducing manual research time by **60%**.
- Led **department-wide enablement of agentic AI workflows** using **Claude Code** and Canvas APIs, empowering non-technical teams to automate course operations through reusable AI agenta, **saving 10+ hours of manual overhead per week**.

Projects

AI Transcript Service

Arizona State University — Learning Enterprise

- Architected a **cloud-native, distributed transcription platform** enabling asynchronous audio/video processing with containerized **API and worker microservices** on **AWS ECS (Fargate)**, scaled **ASU-wide** and recognized by ASU's President for innovation with a **$10,000 grant award**.
- Designed secure **S3 integration** with SHA-based deduplication, Redis queues for asynchronous task orchestration, and scalable microservices to optimize throughput—reducing compute cost by **70%**.
- Implemented **real-time observability dashboards** with Sentry and CloudWatch for performance monitoring, fault detection, and queue latency tracking.
- Leading migration to **Apple M-series edge compute**, developing localized ML pipelines on **10K+ hours of media** to enhance transcription accuracy and inference speed.