

Divyam Ahuja

Systems & Software Engineer

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Experience

Microsoft

Software Engineer

Tech Stack: Python, TypeScript, Docker, Azure, React, Playwright

Noida
Mar 2025 - Present

- Owned the end-to-end Responsible AI (RAI) evaluation pipeline gating model releases; optimized execution latency by **50%** through asynchronous worker pools, intelligent request batching, and custom retry algorithms.
- Onboarded next-generation multimodal AI agents into the core evaluation platform, designing pluggable backend adapters, isolated container sandboxes (Docker), and concurrent distributed cloud runtimes with robust IPC and telemetry capture.
- Designed and scaled an automated synthetic data engine orchestrating parallel LLM workers; modeled complex spreadsheet state graphs to generate **70,000+** multi-step interaction trajectories across **20,000+** enterprise workbooks.
- Served as on-call engineer driving infrastructure reliability across evaluation pipelines—resolving live-site instabilities, engineering deterministic failure classification, and automating bug workflows to maintain **>95%** uptime.
- Designed real-time telemetry ingestion pipelines and KQL aggregations processing **millions** of pipeline events daily, establishing single-pane observability dashboards and automated root-cause triage.
- Optimized client-side rendering pipelines and state management for the core Microsoft Excel web client (React/TypeScript), eliminating UI rendering bottlenecks and meeting WCAG accessibility standards for millions of enterprise users.

Advanced Micro Devices (AMD)

System Software Designer

Tech Stack: C/C++, Java (OpenJDK), Linux perf, Python, Django, React, SQLite

Bangalore
Aug 2022 - Feb 2025

- Engineered a high-throughput visualization dashboard and RESTful API for OpenJDK telemetry, optimizing database queries to increase internal data accessibility by **40%**.
- Automated nightly Java benchmarking and tuning pipelines using machine learning models, achieving a **30%** reduction in manual effort and earning the **Spotlight Award**.
- Profiled CPU and memory bottlenecks using Linux perf; optimized JVM flags, GC policies, and runtime parameters on HPC servers to achieve a **2%** throughput improvement on SPECjbb benchmarks.

Skills

Programming Languages: C/C++, Python, Go (Golang), Java, Kotlin, TypeScript, Bash

Frameworks & Tools: PyTorch, Azure OpenAI, Android SDK / NDK, React/Next.js, Django/Flask, Node.js, gRPC, Playwright

Infrastructure: Kubernetes, Docker, Linux/POSIX, WebAssembly, WireGuard, PostgreSQL, Redis

Open Source

Chromium (Google Summer of Code) | C++, WebAssembly, WebAudio, WebWorkers

- Engineered a lock-free C++ ring buffer as a reference library for real-time audio streaming between WebAudio, WebAssembly, and WebWorkers, benchmarking multiple concurrency strategies.

The Tor Project (Contributor) | Kotlin, Android SDK, Rust, JavaScript, VPNService

- Contributed across Tor Project client and web applications; engineered routing resilience and lifecycle management for the Tor VPN Android app, and developed enhancements for Tor Web platforms.
- gitlab.torproject.org/tpo

p5.js (Processing Foundation) (Contributor) | JavaScript, HTML5 Canvas, WebGL

- Contributed core library improvements and rendering fixes to p5.js, optimizing canvas event handling and cross-browser graphic performance.
- github.com/processing/p5.js

Projects

fastbin: a code sharing webapp | HTMX, Go (Golang), gRPC, PostgreSQL, Docker, Kubernetes

- Built a high-performance code sharing backend in Go utilizing gRPC Protobuf microservices, PostgreSQL with connection pooling and optimized indexing, containerized with Docker and deployed on Kubernetes.
- git.divyam.dev/divyam/fastbin, fastbin.lab.divyam.dev

Homelab | Raspberry Pi 5, WireGuard, Kubernetes, Rancher, MetalLB

- Personal infrastructure hosting containerized services with WireGuard VPN tunneling, MetalLB load balancing, and Rancher-managed Kubernetes, enabling secure, high-availability external access.

Education

Deenbandhu Chhotu Ram University of Science and Technology
Bachelor of Technology (B.Tech.) Computer Science

Haryana, India
Aug 2018 - Aug 2022