Nickhil Pattikonda

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Education

University of Texas at Austin May 2028
B.S. in Computer Science
Relevant Coursework: Data Structures & Algorithms, OOP, Computer Architecture, Operating Systems, InfoSec

National University of Singapore Aug 2026 - Dec 2026
School of Computing, Study Abroad Program

Experience

Cloudflare May 2026 - Aug 2026
Software Engineering Intern - Workers Observability

- Built and open-sourced Local Workers Observability in Cloudflare's workers-sdk, adopted by 10K+ users, converting Worker events into span-based waterfall traces for local debugging and integrating MCP support.
- Re-architected internal ingestion services in C++ for log & invocation workloads (1B+ events/day) & fixed a high-impact sampling-recovery bug, enabling automatic recovery after 5B+ event-rate throttling.
- Built TypeScript RPS analytics & latency heatmaps to isolate anomalies, cutting diagnosis time by 50%+.

Cardlift (YC S24) Aug 2024 - Aug 2025
Software Engineering Intern

- Implemented in-browser TensorFlow.js inference and DOM traversal in a TypeScript Chrome extension to locate checkout elements across 50K+ merchant sites and generate site-specific selectors for UI injection.
- Built FastAPI services with PostgreSQL & Redis to support checkout flows, improving checkout retention by 40%.
- Developed "One Tap Checkout" flows with personalized affiliate offers, increasing purchase conversion by 35%.

Wydget Aug 2023 - May 2024
Founder & Developer

- Created a high-yield savings web platform for 100K+ users using Node.js, Express, PostgreSQL, & React/Next.js.
- Built Python/Node.js scraping pipelines to automatically ingest and refresh interest-rate data across 50+ banks.
- Deployed to Google Cloud with containerized builds and automated deployment workflows for reliable scaling.

Projects

TraceForge - Distributed Tracing Platform | *Go, OpenTelemetry, gRPC, Kafka, ClickHouse, Docker*

- Built an OTLP-compatible Go tracing backend ingesting gRPC/HTTP spans through Kafka into ClickHouse, w/ tail-based sampling & out-of-order trace reconstruction cutting stored spans by 86% but keeping slow/error traces.
- Sustained 260K+ spans/sec across 5 services with sub-10 ms p95 queries using ClickHouse materialized views, batching, backpressure, & async writes for efficient querying and storage.
- Built trace waterfall, service dependency graph, and p50/p95/p99 latency views from ClickHouse aggregates for per-service debugging with the help of visualizations and linked traces.

CodeSession - Collaborative Code Platform | *TypeScript, React, Node.js, Go, Yjs, WebSockets, Docker*

- Built a real-time collaborative IDE with React, CodeMirror, Yjs CRDTs, & WebSockets, synchronizing multi-user concurrent edits, live cursors, and reconnect-safe sessions with zero lost updates.
- Engineered a repository-aware AI coding agent that retrieves relevant code, applies collaborative edits, and iteratively tests changes in isolated sandboxes, solving 72% of 60 benchmark tasks in a median of 2 iterations.
- Built a Go execution service for untrusted code with locked-down Docker sandboxes and a warm container pool, cutting startup latency 55% (130ms → 59ms) while streaming live output over WebSockets.

Peerch - A service marketplace | *React, TypeScript, Supabase, PostgreSQL, Tailwind CSS*

- Built full-stack marketplace with React/TypeScript, enabling UT students to exchange a variety of services.
- Deployed mobile/web app with Tailwind CSS & Supabase, integrating search, secure auth, & Stripe payments .

Technical Skills

Languages: Python, Java, C/C++, SQL, JavaScript/TypeScript, HTML/CSS
Frameworks & Libraries: React, Node.js, Express, FastAPI, TensorFlow, PyTorch, pandas, NumPy
Cloud & Data: AWS, GCP, Azure, Terraform, PostgreSQL, MongoDB, Redis, Firebase
Developer Tools: Git, Docker, CI/CD, Grafana, Sentry