AAVASH SHRESTHA

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SUMMARY

Software engineer with 6+ years of experience designing and building distributed backend systems and developer tools. First hire at an early stage startup, taking products from 0 to 1 while operating infrastructure at 300M+ requests/month with full on-call responsibility. Recent work in building local-first desktop application with AI capabilities.

SKILLS

- **Languages & Tools:** Go, JavaScript/TypeScript, Python, Rust, Lua
- **Infrastructure:** AWS (Lambda, DynamoDB, S3, RDS, EKS), Kubernetes, Nomad, Terraform, Docker, OpenResty/Nginx
- **Systems:** Distributed systems, Multi-region architectures, Serverless, Multi-tenancy, API design
- **Databases:** PostgreSQL, SQLite, Redis, DynamoDB
- **DevOps:** Prometheus, Grafana, GitHub Actions

EXPERIENCE

Deta | Software Engineer   September 2019 – November 2025

First employee at Deta with full ownership of backend systems and infrastructure. Maintained on-call responsibility for 6+ years. Collaborated with team of up to 4 engineers, providing architectural guidance.

Deta Cloud/Space — Platform as a Service (50k+ developer signups)

- Designed and built backend systems in Go for a platform as a service product offering managed services: serverless functions using AWS Lambda, DynamoDB-based key-value store, S3-backed storage service, and cron jobs
- Designed and implemented multi-region data plane architecture for managed serverless, database and storage services with 5 regional clusters handling 300M+ requests/month (135 RPS avg, 400-500 RPS peak)
- Built backend systems for assigning custom domains to users' serverless functions, including verification of ownership and managing SSL certificates
- Designed and built a secure build execution platform for app builds and dependency installations using Firecracker microVMs, handling hundreds of deployments daily
- Built Developer CLI, REST APIs, and SDKs (Go, Python, JavaScript) for managing and using managed services. Designed custom query language on top of DynamoDB API

Deta Surf — Local-first desktop app   github.com/deta/surf (3k stars)

- Led implementation of local-first backend architecture in Rust and LLM API proxies in Go for desktop application with AI-powered notebooks
- Implemented local data layer in Rust with local embeddings and RAG search capabilities
- Managed builds and distribution of desktop app across multiple targets including code signing and notarization
- Worked on first party support of chrome extensions in Electron-based desktop app, and assisted with frontend development as needed (Svelte/TypeScript). Continuing to maintain open-source project

EDUCATION

- **Bachelor of Computer Science**, Constructor University, Bremen, Germany   2016 – 2019
  - **Semester Abroad**, Carnegie Mellon University, Pittsburgh, PA, USA   Winter 2018