

Saphal K. Poudyal

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EDUCATION

University of Southern Mississippi

Bachelor of Arts in Computer Science — GPA : 4.0

Hattiesburg, MS

Expected May 2027

EXPERIENCE

Incoming Systems Engineer Intern, Network Observability

Dec 2026

Meter

San Francisco, CA

- Incoming intern for network observability, joining to work on distributed network path monitoring and anomaly detection infrastructure.

Institute of Advanced Analytics and Society (Aquaview initiative by NOAA)

Hybrid

Software Engineer, Platform Engineering

Jul 2026 – Present

- Promoted to lead decomposition of the Aquaview monolith into independently deployable services, defining service boundaries and authoring inter-service contracts across UI, LLM chat, and SQL/data-lake query interfaces.
- Manage hybrid-cloud and on-prem Kubernetes deployments via Terraform on GCP, supporting differentiated infrastructure requirements across client environments.
- Interface directly with external stakeholders, including NOAA, to scope platform requirements and decomposition priorities.

Software Engineer, Systems & Infrastructure

Feb 2026 – Jul 2026

- Extracted sandbox provisioning into a standalone Go service with multiple ConnectRPC endpoints, supporting concurrent execution across isolated user and automated pools at scale.
- Designed the core orchestrator as a supervisor actor-model in Go with bounded inbox channels and semaphore-controlled worker goroutines, eliminating shared-state contention across concurrent RPC handlers.
- Instrumented the service with a full observability stack OpenTelemetry, Grafana, Loki, and Tempo enabling distributed tracing and structured log correlation across all execution paths.

Founding Engineer

Jun 2025 – Nov 2025

MagnoliaEd LLC

Remote

- Drove end-to-end product development, leading to a \$50,000 seed raise from CoBuilders Cohort powered by Microsoft.
- Provisioned cloud infrastructure on AWS, evaluating managed vs. self-managed cost tradeoffs to cut operational expenses by over 60% at early-stage scale.
- Engineered a modular FastAPI backend with stage-level caching across compute-intensive workflows, reducing redundant processing and improving latency under retries.

Software Engineer Intern, Backend Systems

May 2025 – Aug 2025

Prediction3D Technologies

Part-time / Remote

- Implemented a hybrid OAuth2 authentication system using FedCM with PKCE fallback, integrating Supabase identity provider with a .NET API for cross-browser compatibility.
- Architected a graph-based LLM orchestration system using LangGraph with multi-agent supervisor workflows, RAG, and stateful conversation management via database checkpointing.

PROJECTS

Cepheus | Go, TimescaleDB, NATS JetStream, Phoenix LiveView

Apr 2026 – Present

- Built a distributed network path monitoring platform inspired by Cisco ThousandEyes, performing per-hop latency analysis and route change detection across managed network infrastructure, with Argus, an anomaly detection engine using EWMA/MDMT-based baselining and a hysteresis state machine to suppress transient noise and alert only on sustained degradations.

Maeto | Go, FRR, SRv6, Containerlab

Apr 2026 – Present

- Built an SRv6-based SD-WAN control plane computing directional least-cost paths across a PoP mesh and programming the kernel dataplane via FRR.

Aether | Python, Go, Containerlab, FreeRADIUS

Feb 2026 - Mar 2026

- Simulated a full ISP network from scratch handling user authentication, IP assignment, and per-user bandwidth control the same infrastructure real internet providers run.
- Featured on Hacker News front page for ~36 hours (~65 points); directly led to an internship offer from Meter, a \$1.25B network infrastructure company.

deepseek-go | Go

2025

- Co-authored an open-source Go client library for the DeepSeek AI API; accumulated 300+ GitHub stars organically.

TECHNICAL SKILLS

Languages: Go, Python, C/C++, SQL, TypeScript, Elixir

Infrastructure & Tools: AWS, GCP, Docker, Containerlab, Terraform, GitHub Actions, OpenTelemetry, Grafana

Systems & Networking Linux networking stack, NATS JetStream, ConnectRPC, Temporal, FreeRADIUS

Databases: TimescaleDB, MongoDB, PostgreSQL, Redis