

Sudip Regmi

Kathmandu, Nepal | +977 9822460928 | regmee6411@gmail.com | sudipr.com.np | LinkedIn | GitHub

EDUCATION

- Deerwalk Institute Of Technology** Kathmandu, Nepal
BSc. Computer Science and Information Technology 2019 – 2024

EXPERIENCE

- Techspire College** Jul 2025 – Present
Business Development Officer & Instructor Kathmandu, Nepal
 - Web Platform:** Architected and built the college's public website (techspire.edu.np) end to end, from information architecture and wireframes to an Astro/React production launch.
 - Onboarding Automation:** Built a GitHub-driven student onboarding flow that syncs every form submission into Google Sheets, removing manual data entry for the admissions team.
 - Teaching & Growth:** Teach programming and core IT subjects, mentor students on real-world projects, and drive student outreach and enrollment strategy.
- Kavaya.ai** Jan 2025 – Jun 2025
Data Engineer Singapore
 - Real-time Data Pipelines:** Architected enterprise ETL/ELT pipelines using Bento and DBT for terabyte-scale data processing.
 - LLM Integration:** Orchestrated multi-model AI inference pipeline integrating Llama, Phi, and DeepSeek for predictive analytics.
 - Performance Optimization:** Optimized MongoDB aggregation pipelines and implemented Redis caching, reducing query latency by 85%.
 - Observability Platform:** Built monitoring stack with OpenTelemetry, Prometheus, and Grafana for distributed tracing and metrics collection.
- WaterFlow Technology** Apr 2024 – Nov 2024
Backend Developer Kathmandu, Nepal
 - API Development:** Built secure .NET Core REST APIs with OAuth2/JWT authentication for eSewa/NCHL payment gateway integrations.
 - Cloud Migration:** Led enterprise migration from on-premise IIS to Azure cloud platform, achieving 99.9% uptime and 40% cost reduction.
 - Security Implementation:** Implemented AES-256 and RSA-4096 encryption for financial data protection and an OTP verification system.

PROJECTS

- NEPSE Market Prediction System** Apr 2026 – Present
Python, XGBoost, pandas, Parquet, FastAPI, React, Playwright, Docker, Ollama
 - Data Platform:** Built a 30-year canonical dataset (511K daily rows, 369 symbols, 7.4M trade rows) from fragmented public sources, including a headless scraper for a WASM-auth-protected site.
 - Data Integrity:** Session-exact labels from a holiday-aware trading calendar, corporate-action masking that removed 728 fake crash labels, and fail-closed union-merge writers that prevent silent data loss.
 - Rigorous ML:** Walk-forward XGBoost with embargoed folds reaching rank IC 0.093 ($t = 23.4$); audited away leaked metrics and now running a pre-registered 120-session live forward test.
 - Production:** Calendar-aware daily runner, FastAPI + React dashboard, local-LLM reports; ~720 tests; Docker images consolidated from 4.5 GB to 2.8 GB.
- Distributed Twitter Analytics Platform**
Go, gRPC, NATS JetStream, Redis, MongoDB, Grafana
 - Event-Driven Microservices:** Real-time tweet processing over gRPC and NATS JetStream with distributed consumer groups, designed for 10,000+ requests/sec with sub-millisecond Redis-cached reads.
- Enterprise Reddit Data Platform**
Go, BlueBerry Scheduler, MongoDB, TLS Fingerprinting
 - Ingestion & Orchestration:** Engineered Reddit ingestion with TLS fingerprinting and proxy rotation, driven by a database-backed scheduler with priority-based execution.

TECHNICAL SKILLS

- Languages & Frameworks:** Go, Python, C#, TypeScript, ASP.NET Core, FastAPI, Echo, gRPC, React, Astro
- Databases & Storage:** MongoDB, PostgreSQL, Redis, ClickHouse, Parquet
- Streaming & Messaging:** Apache Kafka, NATS JetStream, RabbitMQ
- Data & ML:** Apache Airflow, DBT, Elasticsearch, ETL/ELT Pipelines, pandas, XGBoost, Ollama, Playwright
- Cloud & DevOps:** Azure, AWS, Docker, Docker Compose, Git/GitHub
- Monitoring & Security:** OpenTelemetry, Prometheus, Grafana, OAuth2, JWT, AES/RSA Encryption