PRANJAL POKHAREL

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SUMMARY

Senior Backend Engineer with **3+ years of experience** designing backend systems, data pipelines, and performance-critical systems. Experienced in integrating **LLM-powered features** with a strong focus on reliability, error handling, and system design. Comfortable working across the stack, driving architecture decisions, and collaborating cross-functionally.

EXPERIENCE

Software Engineer L3, [Genese Solution](#)   *Oct 2025 - Current*
- Implemented serverless backend architecture for financial data ingestion and querying pipelines, processing data from Excel files into Athena-backed datasets.
- Currently developing ETL pipelines for a financial reconciliation system with batch processing and error handling.

Software Engineer (Contract-Internship), [Alpen Labs](#)   *April 2025 - Jun 2025*
- Implemented checkpoint (L1) sync for the [Alpen client](#) (L2 rollup to bitcoin, open source), functional tests, and fixed bugs related to CLI and dependency management.

Technical Consultant, [Third World Nerd](#)   *March 2025 - April 2025*
- Technical consultant for their [video on fundamentals of bitcoin](#) (15k+ views).

Senior Software Engineer, [Naamche (ReAlpha)](#)   *Jan 2024 - Nov 2024*
- Led backend architecture and delivery for multiple products, heading a team of 7 backend engineers and owning system design decisions.
- Designed and optimized PostgreSQL/PostGIS-backed data pipelines for 2M+ real estate records, reducing P95 API latency from >1s to ~300ms via indexing, materialized views, read replicas, triggers, and query refactoring.
- Developed backend systems for document management and verification (DocuSign), search and auto-complete (OpenSearch), CRM integrations, and admin panel.
- Owned backend observability using Sentry, logging, and performance monitoring.
- Worked closely with product managers, designers, and stakeholders to translate business requirements into scalable backend systems.

Software Engineer, [Naamche (ReAlpha)](#)   *April 2023 - Dec 2023*
- Configured multi-tenancy for a portfolio management application and developed microservices for authentication, analytics, transaction processing, and reconciliation.
- Developed a serverless Python SDK for Dealmaker (internal use within the company).
- Created a floor layout builder (rotate-resize-relocate tables using custom drag-and-drop UI), and configured offline data sync using AWS Datastore for a restaurant point-of-sales app.

Blockchain Developer, [iBriz.ai (Part-Time)](#)   *June 2022 - March 2023*
- Developed backend-integrated smart contract features and supporting APIs.
- Built responsive UI components and integrated a [web3 wallet](#) for trading workflow.

SKILLS

- **Programming Languages:** Rust, Python, JavaScript/Typescript, C, C++, and Go.
- **Fullstack Development:** Django, FastAPI (backend), React/Next.js (frontend).
- **AI/LLM Integration:** OpenAI Assistants API, MCP, Tool Calling, Prompt Engineering.
- **Databases:** Strong expertise in PostgreSQL and Redis.
- **Cloud & Infra:** AWS (EC2, Lambda, S3, RDS, DynamoDB, Cognito, Amplify, Athena), Docker, Linux, Git.
- **Miscellaneous:** Celery, Docker, Git, Linux, OpenAI, Pandas, Numpy, Scrapy, Jira.

EDUCATION

[Bachelor in Computer Engineering](#)   *Nov 2018 - Apr 2023*
Pulchowk Campus, Institute of Engineering, Tribhuvan University, Nepal

PROJECTS

- [Yudhisthira (Custom Blockchain)](#) - Built a PoW blockchain with wallet, P2PKH, database integration, API layer, and visualizer.
- [Guthi: Distributed Framework](#) - contributed to RPC, NTP client, and collaborative whiteboard.
- [Redis From Scratch](#) - Implemented Redis-compatible functionality including basic key-value store, master-slave replication, transactions, and persistence.
- Other projects include [browser extension](#) for emoji keyboard, and solving Traveling Salesman Problem (TSP) using [particle swarm optimization](#).

COMMUNITY WORK

- Founding Member, [IT Club Pulchowk](#)
- Instructor: Advanced C Workshop ([2021](#), [2022](#)), [Blockchain Fellowship 2022](#).