SLOK REGMI - FULL-STACK ENGINEER (BACKEND-FOCUSED)

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SUMMARY

Software Engineer with experience developing **enterprise-grade banking systems** using **Java, Spring Boot, Oracle Database**, and **RESTful APIs**. Experienced in designing scalable backend services, optimizing database performance, and implementing secure transaction workflows. Published researcher with expertise in machine learning and graph neural networks. Seeking backend engineering opportunities focused on distributed systems, cloud platforms, and high-performance applications

TECHNICAL SKILLS

Technologies:

- **Backend:** Spring Boot, Django, Hibernate / JPA, Spring Security
- **Frontend:** React, Next.js, Ext JS
- **Languages:** Java, Python, JavaScript
- **ML Libraries:** TensorFlow, PyTorch, NumPy
- **Databases:** Oracle, MySQL, PostgreSQL
- **Architecture:** Microservices, API Design, Database Design, System Design

FULL-TIME EXPERIENCE

Software Engineer (Backend Engineer) — Aug 2026 - Present

Girlys | Germany-based Company (Freelance, Remote)

A startup building a friendship app that helps girls discover and connect with each other.

Core Backend Development

- Developing secure RESTful APIs for user management, profiles, authentication, friend discovery, matching, messaging, notifications, and other core platform features.

System Design & Architecture

- Leading backend architecture design with a focus on scalability, reliability, and maintainability.
- Defining service structure, API contracts, database design, and integration patterns.

AI Development

- Building an AI-based matching system using interests, preferences, and behavioral signals.

Database & Performance

- Designing the data model and data-access layer for user, relationship, and platform data.
- Applying query optimization and caching for performance.

Software Engineer (Fullstack) | Full-time **Dec 2024 - Aug 2026**

Inorins Technologies

An IT company building Core Banking Systems (CBS) for banks and financial institutions.

Core Backend Development

- Designed, developed, and maintained enterprise-grade backend services for a core banking platform using Java and Spring Boot.
- Built secure and scalable RESTful APIs supporting banking operations, customer management, transaction processing, and internal workflows.

Database Engineering

- Designed and optimized Oracle SQL queries and PL/SQL stored procedures for transaction-intensive banking operations.
- Improved database performance through query optimization, indexing strategies, and execution plan analysis.

Security & Compliance

- Implemented secure API practices and validation mechanisms for sensitive financial operations.
- Ensured backend services adhered to organizational security standards and banking compliance requirements.

Performance & Reliability

- Identified and resolved backend performance bottlenecks in APIs and database operations.
- Optimized application response times through efficient query design and backend processing improvements.

CONTRACT EXPERIENCE

Jan 2026 - Aug 2026

TripBudde - Backend Engineer & System Designer (Part-time Contract)

Tech Stack : Python (Django), MySQL, REST APIs

- Architected Django backend services for a travel platform (web and mobile): authentication, trip management, and booking workflows.
- Designed the relational schema, optimized MySQL queries, and built RESTful APIs for web and mobile clients.
- Implemented role-based access control and secure handling of user data.

Surakshya - Backend Engineer (Part-time Contract) **Sep 2025 - Jan 2026**

Tech Stack : Python (Django), MySQL, REST APIs

- Built Django backend services for a social safety and tracking platform connecting users with service personnel.
- Designed REST APIs for registration, location tracking, and reporting, with the supporting MySQL schema.
- Implemented authentication and authorization to protect sensitive user data.

EDUCATION

- **B.E. in Software Engineering, NCIT (Pokhara University)** **Aug 2022 - Aug 2026**
- CGPA: 3.67 / 4.0
- Final-year project: SecureScore, federated-learning credit scoring for banks (Best Project Award)

- **High School (+2) in Science, Nepal Examination Board** **Apr 2020 - Apr 2022**

RESEARCH EXPERIENCE

- **Research Assistant (Supervisor: B. Thapa)** **Mar 2025 - Dec 2025**

Project: SCALE-GNN: Advanced Graph Reduction for Scalable Test Case Prioritization Using GNN

- Designed graph reduction techniques to improve scalability and computational efficiency of GNN-based test prioritization models.
- Evaluated approaches for optimizing test execution efficiency in large software systems.

B. Thapa, **S. Regmi · ICICSET 2025 · DOI:https://doi.org/10.65091/icicset.v2i1.28**

- **First Author** **Mar 2025 - Dec 2025**

Project: Low-Cost Air Quality Forecasting in Resource-Constrained Environment
S. Regmi, L. Khatri, S. Giri, P. Baral, B. Thapa · ICICSET 2025

- Designed a low-cost IoT sensing architecture to measure AQI
- Evaluated forecasting algorithms under hardware constraints

DOI : https://doi.org/10.65091/icicset.v2i1.24

- **First Author** **Jan 2026 - Jul 2026**

Project: µGraphCoder: Hypernetwork-Generated Tiny Graph Neural Networks with Vector-Quantized Codebooks for Dynamic IoT Topologies

- Built a hypernetwork mapping graph fingerprints to 12-byte codebook updates (961× reduction) to reconstruct INT8 GNNs on microcontrollers.
- Enabled on-device rank-4 LoRA adapters to recover 48.5% of the F1 lost to concept drift without server contact.

S. Regmi, B. Thapa · **Accepted, ICOIICS 2026 (DOI pending)**

- **First Author** **Mar 2026 - Aug 2026**

Project: NEXUS: Quantifying the Value of Link Prediction and Behavioural Trust in Infrastructure-Free Mesh Routing

- Built a 19.9 kB GraphSAGE link-survival predictor cutting mesh route breaks by 43% and capturing 83% of oracle headroom.
- Added watchdog trust tracking that recovered up to 24.3% on-time delivery under packet-dropping attacks.

S. Regmi, B. Thapa · **Accepted, ICICSET 2026 (DOI pending)**

ACHIEVEMENT

- **Winner/Top Performer** in **DevPost** Hackathon competitions.
- **Best Project Winner** in **Final Year Project (SecureScore)**

REFERENCES

Ramendra Pradhananga , CEO (Inorins Technologies)

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Bhusan Thapa, HOD Software Engineering and Research Supervisor (NCIT)

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