

Ritesh Pandey

Nationality: Nepalese **Date of birth:** 10/05/2000 **Place of birth:** Dhangadhi, Nepal

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WORK EXPERIENCE

Ycotek Nepal – Lalitpur, Nepal

City: Lalitpur | Country: Nepal

Senior Software Engineer

[15/07/2025 – Current]

- Developed AI-powered chat system for retail applications, analyzing customer interaction patterns and conversation data to optimize response accuracy and user engagement metrics
- Implemented backend functionality using Python with focus on architecture, API development, and system performance analytics
- Conducted comprehensive code reviews and data-driven assessments to improve codebase quality and identify optimization opportunities
- Mentored junior developers on data-informed development practices, statistical thinking, and analytical problem-solving approaches
- Developed website for AI powered chat system with different functionalities.
- Worked closely with data engineers while integrating LangChain and LangGraph to the system
- Currently exploring AI agents and agentic architectures in depth, including how multi-agent systems are designed and orchestrated, and pursuing the Claude Certified Architect course to further strengthen this expertise

LIS Nepal – Lalitpur, Nepal

City: Lalitpur | Country: Nepal

Software Engineer I

[01/01/2025 – 14/07/2025]

- Developed web applications using Next.js with emphasis on user behavior tracking and engagement analytics
- Collaborated on AI-based projects, working with model evaluation metrics and performance optimization
- Conducted peer reviews focusing on code efficiency and data handling best practices
- Analyzed application logs and user data to identify system bottlenecks and improvement opportunities

LIS Nepal – Lalitpur, Nepal

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Associate Software Engineer

[10/01/2024 – 01/01/2025]

- Developed cross-platform applications analyzing user interaction patterns to inform design decisions
- Built scalable software systems with integrated analytics for performance monitoring
- Implemented SQL databases and developed queries for efficient data retrieval and analysis

LIS Nepal – Lalitpur, Nepal

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Software Intern

[03/10/2023 – 01/03/2024]

- Developed cross-platform applications with Flutter, implementing data collection mechanisms
- Gained hands-on experience with SQL database design, querying, and optimization
- Utilized JIRA for project management and data-driven sprint planning

Creators Tech – Lalitpur, Nepal

City: Lalitpur | Country: Nepal

Flutter Developer Intern

[08/12/2022 – 01/01/2023]

- Designed application layouts based on user experience research and usability data
- Developed interactive applications with API integration for real-time data synchronization
- Implemented features tracking user engagement and application performance metrics

LANGUAGE SKILLS

Mother tongue(s): Nepali

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

English

Listening C2 Reading C2 Writing C1 Spoken Production C1 Spoken Interaction C1

Hindi

Listening C1 Reading B2 Writing B2 Spoken Production B2 Spoken Interaction B2

EDUCATION AND TRAINING

Undergraduate

Tribhuvan University [12/10/2018 – 17/04/2023]

City: Lalitpur | Country: Nepal | Field(s) of study: Computer Engineering

- Mathematics: Mathematics II (Calculus), Probability & Statistics, Mathematics III (Laplace Transform, Fourier Series)
- Programming: C, Object-Oriented Programming (C++)
- Core Computer Science: Data Structures & Algorithms, Theory of Computation, Discrete Structure
- Systems: Operating Systems, Computer Organization & Architecture, Embedded System
- Networks & Security: Computer Networks, Data Communication, Internet & Intranet
- Data Management: Database Management Systems, Big Data Technologies
- Software Engineering: Software Development, Distributed Computing, Enterprise Computing (AWS)
- Ethics & Policy: Engineering Professional Practice

Higher Secondary Education

Nepal Mega College [01/05/2016 – 10/03/2018]

City: Kathmandu | Country: Nepal | Field(s) of study: Science

SKILLS

Programming Languages

Dart / C++ / Python / C / JavaScript

Frameworks & Tools

Git / Bloc / Firebase / Flutter / Next.js

Database Technologies

MS SQL Server, MySQL, NoSQL, MongoDB

Development Tools

Android Studio / VS Code / XCode

Platforms

Android / iOS / Web

CERTIFICATIONS

- [HackerRank – Software Engineer Intern \(07/12/2023, Online\)](#)
- [HackerRank – SQL \(Basic\) \(08/12/2023, Online\)](#)
- [IBM – Data Analysis with Python \(22/07/2024, Online\)](#)

- [Amazon Web Services \(AWS\) – AWS Academy Cloud Foundations \(10/08/2022, Presential\)](#)
- [Canvas Credentials \(Badgr\) – Postman API Fundamentals Student Expert \(15/11/2025, Online\)](#)
- [Great Learning – Flutter \(Online\)](#)

HONOURS AND AWARDS

Kantipur Engineering College – Best Project Award (Lite Project Exhibition)

- Implemented real-time security monitoring with encrypted alert systems
- Designed secure location tracking and pattern-based emergency calling features
- Created privacy-preserving location sharing with access control mechanisms

PUBLICATIONS

Offline Wallet Secured with AES Encryption — KEC Conference (2023)

- Developed SMS-based secure digital transaction system for low-connectivity environments
- Implemented AES-128 encryption for data confidentiality and Diffie-Hellman protocol for secure key exchange
- Conducted cryptographic analysis and security performance evaluation
- Performed threat modeling and vulnerability assessment
- Collected and analyzed transaction security patterns from field deployment

Authors: Ritesh Pandey, Sushan Shrestha, Saurav Rajbhandari, Shashwat Gautam

Journal Name: International Conference on Engineering and Technology