

Prahlad Panthi

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I am a backend-focused full-stack software engineer with experience across diverse industries, including education, healthcare, and e-commerce. From designing database and system architecture for startups to building scalable backend and frontend applications for large organizations, I bring a proven ability to deliver robust solutions. My expertise includes developing secure APIs, software test automation, AI integration, and cloud services, with a passion for creating efficient, scalable, and innovative software systems. Currently, I am learning about agentic AI and its integration in web apps.

Skills

Programming Languages: Java, Javascript, Typescript, Python, php

Backend Technologies: Spring Boot, Microservices, Restful APIs, GraphQL, Laravel

Frontend Technologies: React, Next JS, React Native, Vue JS

Databases: MySQL, Oracle SQL, MongoDB, Sqlite, PostgreSQL, Neo4J, ElasticSearch

Cloud Services: AWS, Firebase, Serverless Architecture

AI & Machine Learning: OpenAI, Large Language Models (LLM)

Others: Docker, Kubernetes, Git, CI/CD, PowerBI, R

Professional Experience

Web Developer

The Mark Agency, Canberra, Australia

Sep 2024 - Present

- Developed responsive websites using WordPress and Drupal by implementing designs from the design team, ensuring optimal performance and an engaging user experience.
- Built fast-loading, static websites with Vue.js and Astro by utilizing modular development techniques, enhancing SEO performance and reducing page load times.
- Worked with the design team to bring the designs into functional user interfaces using React JS for web application.
- Created scalable, dynamic web applications with Vue.js by designing reusable components and seamlessly integrating RESTful APIs, improving user interaction and functionality.
- Designed and implemented robust APIs using Java and Spring Boot, enabling seamless system integration and ensuring high reliability and performance.

Backend Developer (Fixed Term Contract)

TuteHub, Canberra, Australia

Sep 2022 - Dec 2022

- Developed secure APIs using Spring Boot (Java 17) with MySQL and MongoDB, ensuring robust and reliable data management.
- Conducted comprehensive unit tests for all API endpoints using JUnit, ensuring code quality and functionality.
- Optimized API response time through database query optimization, strategic indexing, and efficient pagination techniques, enhancing the overall system performance.
- Implemented microservices architecture with Eureka, Hystrix, and Ribbon to increase system responsiveness and throughput, and used git for version control.
- Deployed backend services on AWS and configured Apache Server in a Linux environment.

Software Engineer

Amtrix Technology, Kathmandu, Nepal

July 2020 - Dec 2022

- Designed and implemented an inventory management and billing system for pharmacies, making it easier to analyze the sales and inventory data at the end of every fiscal year.
- Designed and implemented databases (MySQL, MongoDB) and worked on system design and architecture with senior engineers.
- Developed and optimized secured REST APIs using Spring Boot (Java 17), Spring Security with JWT and OAuth 2.0, and caching techniques, resulting in a 45% increase in throughput.
- Worked with multi-disciplinary teams to build a cloud-based SaaS platform and managed API documentation using Javadoc.
- Utilized WebSocket for sending real-time notifications from the server to web and mobile applications, effectively addressing the limitations of HTTPS protocol which does not provide real-time, bidirectional, event-driven communication.
- Implemented cron jobs to automate data processing during low traffic periods, resulting in improved server performance and resource management.

- Developed web interfaces for SaaS products using React JS and Material UI, and built cross-platform mobile applications with React Native, enhancing user experience and expanding platform accessibility.
- Implemented GitLab's toolchain for continuous integration and continuous deployment (CI/CD), streamlining the development lifecycle and enhancing collaboration between development and operations teams, which resulted in a 50% reduction in deployment time.
- Utilized various logging tools like log4j2 and Java util logging to catch and analyze log messages, to identify and resolve critical bugs, which ultimately enhanced system reliability and improved overall performance.

Software Engineer

ING Group, Nepal

Jun 2019 - Aug 2020

- Designed and implemented an attendance management system and employee payroll management system for educational institutions, enabling real-time tracking of student and staff attendance while automating payroll processing and generating detailed reports for administrative analysis.
- Built intuitive web interfaces using React JS and Material UI, allowing administrators to easily manage, analyze, and export various data.
- Utilized Amazon S3 for secure storage of attendance logs and payroll records, Amazon RDS for scalable database management, AWS EC2 for hosting backend applications, and AWS Lambda for automating report generation and payroll processing, ensuring a robust and scalable cloud infrastructure.

Software Developer

Spiker Solutions, Kathmandu, Nepal

Nov 2018 - April 2019

- Developed native Android applications using Java and backend systems using Spring Framework.
- Managed version control with Git and led project management using Agile SCRUM, improving team collaboration and project delivery efficiency.

Projects

Home Loan Origination Model for Australian Mortgage Industry

University of Canberra | SAS Canberra ([Github](#))

- Worked on the development of a predictive model using SAS Viya and the HMEQ dataset to assess loan default risk amid rising homeowner debt in Australia.
- Applied Agile Methodology for efficient project management, overcoming challenges in project initiation, task planning, workload distribution, outcome evaluation, model integration, and communication.
- Presented findings to stakeholders at SAS' Canberra office, enhancing skills in project management and data analytics, and contributing insights for addressing housing market challenges.

Facial Emotion Recognition System ([Github](#))

- Developed a Facial Emotion Recognition System using the openCV library and scientific Python.
- Curated facial sample images for testing and training, ensuring diverse and representative datasets.
- Implemented pre-processing and feature extraction techniques to enhance facial recognition accuracy.
- Conducted rigorous training and testing on datasets to optimize the system's accuracy and performance, resulting in an average accuracy of 86%.

Text Summarization using Natural Language Processing

Jawaharlal Nehru Technological University, India

- Worked with a team to develop a text summarization application by performing data cleaning and preparation to ensure thorough and efficient data processing.
- Delegated tasks, conducted project planning, and estimated time and cost for the project, optimizing workflow and resource allocation.
- Proficiently wrote clean code in Python and Java, maintaining high standards of code quality and readability. Developed a desktop application using Java Swing according to project requirements, successfully achieving functionality and user interface goals.

Education

University of Canberra

Masters of Data Science

Aug 2022 - May 2024

Jawaharlal Nehru Technological University, Kakinada, India

Bachelor's in Technology | Computer Science and Engineering

July 2015 - May 2019