

ROSHAN BHATTARAI

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SOFTWARE ENGINEER

Seasoned Backend NodeJS developer having 5+ years of professional experience developing enterprise applications for Health, Tourism and Hotel sectors. Developed a robust and scalable Pharmacy Management System, Hotel Management Systems, Flight and Hotel Booking Systems, and Inventory management systems using MEAN & MERN stack following SCRUM and Agile methodologies. Proficient in backend technologies including NodeJS, Express JS, NestJS, Java, SpringBoot, MySQL, Git, Kubernetes, and Docker.

Object Oriented Programming • SOLID • CI/CD • Containerization • Cloud Computing
Microservices • Distributed Tracing • Database Management

Languages: JavaScript , Java

Web: HTML, TypeScript, CSS, React, Next JS/Next.js, HTTP, WebSocket, REST, JSON

Web/App Servers: Apache, Nginx, Node.js

Frameworks: Express JS, Nest JS, Spring Boot, React, Angular

Databases: MySQL, PostgreSQL, MariaDB, MongoDB, Redis

Design Patterns: Singleton, Facade, Strategy, Factory, Dependency Injection

SDLC: Agile, Scrum

Tools: Kafka, Azure service Bus, Nginx, Git, Docker, Kubernetes, Azure Kubernetes services, EC2, EKS, SonarQube, OpenTelemetry, ELK, Grafana, Prometheus

Platforms: Linux, MacOS

PROFESSIONAL EXPERIENCE

CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).

LEAPFROG TECHNOLOGY INC., Seattle WA, USA • 03/2023 – 01/2024

Leapfrog develops and provides software solutions for pharmacies and hospitals.

Senior Software Engineer (Remote)

Designed and developed Signetic, which is a pharmacy management tool.

- Migrated the notification system from Power Apps to a NodeJS backed infrastructure, streamlining integration with other microservices, significantly enhancing business value, and reducing infrastructure costs by nearly 30%.
- Containerized applications using Docker to ensure consistent production and deployment environments across team members, reducing environment-related bugs and time to production.
- Leveraged Typescript and NodeJS to create a common library module for interacting with Dataverse, addressing concurrency issues, and replacing duplicated code across multiple services.
- Enhanced the logging infrastructure by integrating OpenTelemetry across Microservices, providing greater logging transparency and significantly reducing debugging overhead.
- Introduced Test-Driven Development (TDD) to the team, which significantly reduced the deployment cycle and decreased the number of bugs encountered during testing by nearly 60%.
- Integrated CI workflows through Github Actions combining with existing ArgoCD, to run test cases and scan code quality using SonarQube, making sure code quality met company-wide practices.
- Worked closely with engineering managers to establish and implement Git policies and code review standards, ensuring consistency and quality across the company.

Technologies Used: Node.js, Express JS, TypeScript, React JS, C#, Dataverse, Redis, ArgoCD, PostgreSQL, SonarQube, Azure service Bus, Azure Kubernetes services, Azure Storage, Git, Docker, Power Platform, Microservices, OpenTelemetry

DIAGONAL SOFTWARE, Aschaffenburg, Germany • 12/2020 – 03/2023

Diagonal Technologies Pvt. Ltd., Sankhamul, Lalitpur, Nepal

Provides software solutions to clients based on their requirements.

Software Engineer (Hybrid)

Software Design and Development, Mentoring, create POC, Research and development

- Designed and developed a plug-and-play CMS using Strapi, Craft.js, and React, enabling seamless integration with any React-based project, reducing cost to almost zero and update time from days to instant deployment.
- Developed a prototype leveraging PSD2 APIs to cross-verify customer information by integrating PISP and AISP functionalities. This process ensured secure authorization and data sharing, resulting in accurate and reliable customer verification, laying a strong foundation for a full-scale, PSD2-compliant validation system.
- Developed a React-based SDK that simplified the integration of the customer validation system through a JS script, acting as a facade to abstract system complexity and provide clients with a streamlined interface, thereby enhancing adoption, and reducing development time and costs.
- Redesigned and optimized the front-end of an Angular-based kitchen management app in collaboration with the analytics team, enhancing performance and usability, which led to 80% of users finding the latest version easier to navigate and use compared to the old version.
- Led the development of a project management tool for a diverse, remote team, enabling intuitive availability tracking, and asynchronous work; providing project managers with insights to optimize workloads and make informed planning decisions, resulting in smoother project execution.
- Introduced OpenTelemetry in the company providing greater logging transparency and significantly reducing debugging overhead across Microservices.
- Leveraged SpringBoot and Hibernate to create a backend system for clients to update the flight and hotel booking information in the database, minimizing the risk of errors in manual data entry.

Technologies Used: NodeJS, Angular, React, NextJS, Java, NestJS, ExpressJS, SpringBoot, MySql, PostgreSQL, Redis, Kafka, RabbitMQ, Nginx, Docker, Kubernetes, Git, Gitlab CI, SonarQube, OpenTelemetry, GKE, Cloud Vision Apis, Google Storage

DIGITAL ATHLETE PTY LTD, NSW, Australia • 08/2020 – 12/2020

Provides Digital solution and creates digital presence for businesses.

Full-stack Developer (Remote/Contract)

Research, Integration, Development

- Created responsive React and WordPress applications to establish a digital presence for clients, leading to an average increase in online engagement by 40% across various businesses.
- Developed custom back-office tools, including admin panels that consolidated data from multiple sources (Google Analytics, social media platforms, sales data) into a single, easy-to-use interface, providing actionable insights and reducing the time spent on reporting by 33%.

Technologies Used: NodeJS, JavaScript, TypeScript, Express JS, MySQL, Git, React, Wordpress, Google Analytics, Active Campaign, Hotjar, CSS, HTML

GREEN COMPUTING NEPAL, Anamnagar, Kathmandu, Nepal • 11/2018 – 07/2020

Provides Digital Solution to the clients.

Full Stack Developer

Design and Development, Communication, Mentoring

- Developed a payment tunneling system that integrated all major payment providers into a single application, centralizing payment processing and requiring only one subscription, which significantly reduced costs, simplified integration, and enhanced payment management across multiple web portals.
- Developed a JavaScript SDK that acted as a facade, simplifying payment integration by abstracting system complexity and providing a unified interface, which improved payment tracking and management across multiple web portals while still offering customers flexibility in their payment options.

Technologies Used: NodeJS, PHP, Java, Angular, React, Wordpress, JavaScript, TypeScript, MongoDB, MySQL, Git, Digital Ocean

RELEVANT PROJECTS

Maharishi International University (2024) Minimart Ecommerce Application: E commerce Application aimed at providing hands-on experience in building a full-stack application using Spring and React technologies. Utilized Java, SpringBoot, Hibernate, Postgres, JWT, React

EDUCATION

Master of Science in Computer Science

(In progress via distance education; expected completion 10/2026)

Maharishi International University, Fairfield, Iowa

Key Courses: Enterprise Architecture, Advanced Software Development, Web Application Architecture, Machine Learning

Bachelors degree in computer engineering

Tribhuvan University, kathmandu, Nepal