

SANDEEP MAHARJAN

Open to relocate

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[Linkedin](#) | [Portfolio](#) | [Github](#)

EDUCATION

University of Nevada Las Vegas

Las Vegas, August 2022 - May 2024

Master of Science in Computer Science

Thesis: Triangulation Guided High Clearance Collision-free Paths (Advisor: [Dr. Laxmi Gewali](#))

Presented thesis paper (#4460 - General Track) at [ITNG 2024](#) (21st International Conference on Information Technology: New Generations).

TECHNICAL SKILLS

Languages: Proficient: C, C++, NodeJS, ExpressJS, PHP, ASP.NET MVC, Java, Python, ReactJs

Familiar: Go, Javascript, CodeIgniter, Laravel, Html, CSS, Flutter, TypeScript

Tools and Technologies: Visual Studio, PyTorch, Scikit-learn, GIT, Pandas, Numpy, Bootstrap, SQL, MongoDB, Microsoft SQL Server, PostgreSQL, matplotlib, LaTeX, WebAPI, Tensorflow, Keras, IaaS, GIT, Gitlab, AWS, DigitalOcean, Docker, Apache, NGINX, JWT, Firebase, Postman, Socket.io, WCF services, Asp.net LINQ

WORK EXPERIENCE

Graduate Teaching Assistant

Las Vegas, August 2022 - May 2024

- Tutored and guided undergraduate students on courses Data Structures and Algorithm Analysis, Automata and Formal Languages, and Introduction to Machine Learning for 4 consecutive semesters.
- Demonstrated coding to a class of 20 to 25, proctored quizzes and more than 10 exams for undergraduate students during the Fall.

Full Stack Software Engineer at Smart Tech Nepal Pvt. Ltd.

Kathmandu, November 2017 - July 2022

- Developed and maintained client and server-side applications (MERN), resulting in improved system performance and scalability.
- Mentored team members in React, and Redux, serving as go-to resource for debugging complex issues, accomplished new features, and applied React hooks, Redux and Context API to boost application functionality.
- Managed cross-functional teams to redesign and optimize customer portal; Incorporated React for front-end development.
- Designed and managed databases, primarily MongoDB, ensuring data integrity and optimal performance.
- Perfected SQL queries, schemas and database, achieving sub-100ms API response times by efficient query design, Redis caching, and stored procedures.
- Established authentication and authorization using Passport.js and JWT tokens for securing Node.js applications.
- Updated interfaces, added new features, fixed coding problems, and enhanced overall efficiency of the old product.
- Collaborated with stakeholders to understand requirements, producing comprehensive technical documentation (UML and class diagrams, test cases, and system architecture) to facilitate clear communication and collaboration between teams.
- Safeguarded web applications against common vulnerabilities, including SQL injection, XSS, CSRF, and unauthorized access, thereby bolstering the overall security posture of the system.
- Trained and facilitated 10 newcomers in the team.
- Prepared thorough reports on team activities, progress, and recognized disputes as well as revisions to project specifications.

Backend Software Engineer at Bigfoot Infotech Pvt. Ltd.

Kathmandu, December 2015 - May 2017

- Strengthened Node.js/Express RESTful APIs with middleware to enforce Top OWASP best practices for authentication, logging, and error handling; safeguards against cybersecurity threats and validated robust application functionality.
- Built a highly scalable and maintainable backend with Node. Employed modular architecture, dependency injection, decorators to enforce SOLID principles and facilitate efficient unit testing for organized codebase.
- Incorporated robust error handling using try-catch blocks and HTTP status codes to gracefully handle exceptions, provide informative error messages to users, and maintain application stability.
- Documented the code, APIs, and any relevant processes to facilitate knowledge sharing within the team.
- Implemented middleware components for request processing and collaborated with frontend developers, designers, and stakeholders.
- Improved the old product's overall performance, added new functionality, corrected coding issues, and updated interfaces.
- Stayed updated with the latest trends and technologies in backend development.

Co-founder and Software Engineer at Walkman by Green Coins

Kathmandu, September 2018 - July 2020

- Developed front-end and back-end (MERN) for the Android mobile application [Walkman Green Coins](#).
- Among more than 400 Nepali and Indian startups, one of the finalists at [Connect \[IN\] - 2nd International Entrepreneurship Conclave](#).
- One of the top 5 finalists out of more than 200 applications for all categories in the [ICT Award 2019](#) - The Biggest Tech Award Of Nepal's Startup ICT Award Category.
- One of the top 100 concepts in the climate and environment category of the Kathmandu Metropolitan City's Smart Urban Technology Challenge 2018 and among more than 150 applications, one of the finalists in Youth Co:Lab Nepal II.

ACHIEVEMENTS

[Microsoft Certified Professional](#) , [Microsoft Specialist](#) (Server virtualization with Windows Server Hyper-V and System Center Specialist) **February 9, 2014**

PROJECTS

- Developed a Java application for [Reverse Engineering GeoGebra](#), allowing users to add/remove points, lines, and polygons on a 2D plane. This project includes a menu bar, drawing canvas, and control panel, and can read and write files to and from [GeoGebra.org](#).
- Developed the frontend and backend(MERN) for the [InksVilla](#) (Tattoo House Nepal) mobile application.
 - [Startup World Cup Nepal 2022 Regional Winner](#)
- Developed [AgroNepal \(PHP\)](#) for a minor project, a web-based interactive platform that allows farmers to buy and sell goods with a product recommendation system.
- Developed a web-based application, [Decision Support System for Human Resource Management](#) (ASP.NET MVC, Entity Framework, Microsoft SQL Server), as a major project, to help managerial decision-making.
- Developed a web-based application, [Muli Pariwar Lagat](#) (ASP.NET MVC, Entity Framework, Microsoft SQL Server/MySQL), to store and view records with charts of demographic information for villages, including a PDF file viewer for paper records (transforming paper-based records to digital format).
- Developed C++ project [Employee Management System](#) which is a menu driven program which allows to add, update, delete and search records of employees working in an organization.