

Sankalpa Chhetri Dhakal

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EDUCATION

McMaster University

Bachelor of Software Engineering

Cumulative GPA: 3.8/4.0; Dean's List 2022-2023, 2023-2024

Relevant Coursework: Databases; Object Oriented Programming; Data Structures & Algorithms; Software Design and Development

Hamilton, ON

Expected May 2027

WORK EXPERIENCE

Canada Life

Software Architect Intern

Toronto, ON

Jan 2025 – April 2025

- Collaborated with senior leaders to develop technology strategies and roadmaps aligned with organizational objectives using tools like LeanIX for enterprise architecture management.
- Gained exposure to modern technologies such as cloud computing, microservices architecture, and DevSecOps tools.
- Conducted research on emerging technologies to build innovative prototypes, advancing system capabilities.

McMaster Engineering Society- Infrastructure Development Team

Full-Stack Developer

Hamilton, ON

July 2024 – Present

- Developed and managed a full-stack website for McMaster Engineering Society using MongoDB for backend data management and Next.js/React for frontend development.
- Implemented RESTful API endpoints, for smooth data transmission between the user interface and MongoDB database.
- Collaborated with cross-functional teams to enhance the user interface, optimizing for responsiveness across all devices.
- Implemented best practices for maintainable and scalable code, including ESLint, Prettier, and Git branching.

PROJECTS

[Link Ripple](#) | React, Next.js, Node.js, Express, MongoDB, Tailwind CSS

- Developed a full-stack Linktree clone with a React frontend, MongoDB backend for managing personalized landing pages with links to social profiles, and secure user authentication for registration and login.
- Built a responsive dashboard for managing links, enabling users to add, edit, and remove links with real-time updates on their landing page and developed a MongoDB backend to efficiently store and retrieve user and link data.
- Deployed the application on Vercel, optimizing the user experience across desktop and mobile devices.

NBA Games Predictor | Python, Jupyter Notebook

- Developed a Python application for predicting NBA game outcomes, using machine learning techniques and statistical analysis. Also, collected and processed historical game data to build a predictive model.
- Utilized classes like numpy and pandas for data cleaning, ensuring data quality and improving predictive power and used Scikit-learn to build, train, and evaluate machine learning model using techniques such as train-test splitting.
- Used ridge classifier for rigorous model evaluation and optimization, fine-tuning hyperparameters and adjusting model architectures for improved performance using scikit-learn library against historical NBA game outcomes.

Island Exploration | Java, Maven, Junit, SonarQube, UML, Docker

- Created a Java-based programming game with a focus on island exploration, utilizing a drone for issuing commands and receiving responses to identify emergency sites and locate nearby creeks.
- Followed object-oriented design principles and design patterns, including GRASP, SOLID, and GoF.
- Implemented Docker for consistent development environments, along with SonarQube for continuous code quality analysis and JUnit for comprehensive testing.
- Managed project tasks and workflow efficiently using Kanban, facilitating streamlined development and task tracking.

SKILLS SUMMARY

Languages and Libraries: Python, Java, JavaScript, HTML/CSS, C, C++ Verilog, Pandas, Numpy, Scikit-learn, Matplotlib, TensorFlow, SQL

Tools & Frameworks: Linux/Unix, GitHub, Inventor, MATLAB, Arduino, React, Next.js, Express, MongoDB, Tailwind CSS, Maven, SonarQube, Docker, Jupyter Notebook, REST