Manish Tomar

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SKILLS

PROGRAMMING LANGUAGES
C • C++ • C# • JavaScript • Python

FRONT-END DEVELOPMENT
Next.js • React.js • Three.js • .NET MAUI • Tailwind CSS

BACK-END DEVELOPMENT
Node.js • Express.js • Flask • .NET ASP Core

DATABASES
MongoDB • MySQL • Google Firebase • SQL Server,• DynamoDB

CLOUD SERVICES
Amazon Web Services (AWS)

DEVOPS
Jenkins • Docker

MACHINE LEARNING
TensorFlow • Keras • PyTorch • OpenCV • scikit-learn

CURRENTLY LEARNING
Embedded Programming • Nordic Semiconductor • Wi-Fi to Cloud Integration

EDUCATION

M.SC. IN SOFTWARE ENGINEERING WITH PLACEMENT
Cardiff University, UK
2023 -- 2025

MASTERS IN COMPUTER APPLICATIONS (HONS)
Madan Mohan Malaviya University of Technology, Gorakhpur, India
Graduated 2023

BACHELORS IN COMPUTER APPLICATIONS
Chaudhary Charan Singh University, Meerut, India
Graduated 2020

HONORS AND AWARDS

OUTSTANDING FOUNDER
Cardiff University, UK
Awarded for founding SwapIt

ELITE CODER
Cardiff University, UK
Recognized for excellence in Data Structures and Algorithms.

BEST TEAM PLAYER
National Software Academy, Cardiff University

EXPERIENCE

CENTRE FOR PROCESS INNOVATION | Software Engineer (Placement Student)
July 2024 – Present | Sedgefield, UK

- Working on the 5G Test Bed project for the NHS, integrating AWS IoT to connect medical sensors and enable real-time data tracking.
- Selected DynamoDB for cost-effective IoT data storage, reducing operational expenses by 20% and ensuring scalability.
- Developing a real-time dashboard using Next.js for healthcare professionals, improving response time by 25%.
- Utilizing .NET MAUI to reduce development time by 50% through a single codebase across multiple platforms.
- Implementing Docker, Kubernetes, and Jenkins to streamline deployments and reduce manual integration efforts.
- Contributing to the NetStick project in collaboration with Belfast University, securely storing and displaying test images on AWS S3 for quick web access.
- Developing a CNN model to analyze chest X-rays, improving diagnostic accuracy and reducing time to diagnosis.
- Learning embedded programming using the Nordic board to send sensor data via Wi-Fi to the cloud for real-time processing.

SWAPIT | Founder
December 2023

- Founded SwapIt, a platform designed for users to swap or donate used items across the UK, inspired by my own experience of struggling to find essential furniture when I arrived in the UK.
- Developed features allowing real-time chat, enabling users to easily communicate and coordinate swaps or donations.
- Implemented swap requests, allowing users to initiate item exchanges seamlessly within the platform.
- Designed a location-based search system, helping users find available items near their location, improving convenience and accessibility.
- The platform addresses sustainability and community support, reducing waste by facilitating the reuse of goods.
- Web app available at: swap-it-uk.netlify.app.

MOONDIVE | Software Development Engineer
May 2023 – September 2023 | India

- Developed a real estate web app with a frontend built using React.js and a backend powered by Express.js, ensuring a seamless user experience.
- Utilized MongoDB for efficient data storage and AWS S3 for image storage, handling large datasets of property listings and user information.
- Built a recommendation system leveraging user data to suggest properties, using machine learning libraries such as scikit-learn and TensorFlow.

PROJECT

LETSCONNECT | Real-time Social Platform
LetsConnect Web App

- Developed a web app enabling real-time friend requests, chat, and notifications using Next.js 14 and WebSockets for real-time data communication.
- Hosted on AWS EC2 with Docker for scalable deployment.