

Nikhil Sarwara

+61 481 756 675 | info@nikhilsarwara.com | linkedin.com/in/nikhilsarwara | github.com/Nikhil-Sarwara | nikhilsarwara.com

Education

Bachelor of Software Engineering

2022-2026

Deakin University, Burwood, VIC, Australia
Weighted Average Mark (WAM): 83: High Distinction

AISSCE, CBSE, Class XII

2020 – 2022

D.A.V Riverside, Ambala Cantt, Haryana, India
Percentage: 83.4%

Technical Skills

Languages	Python, Java, C++, JavaScript (ES6+), TypeScript, SQL, C#, .NET, HTML5, CSS3
Frameworks	.NET Framework, .NET Entity Framework, React JS, Express.js, RESTful APIs, ROS2, MAVROS, Semantic UI, Chakra UI, Tailwind CSS
Cloud & Infra	AWS (EC2, S3, DynamoDB, RDS), Docker, Kubernetes, Git, CI/CD Principles
Data & DB	PostgreSQL, MongoDB, Redis, pgAdmin, Azure Data Studio, Data Structures & Algorithms
Security	bcrypt, Swagger, Nmap, Metasploit, OWASP Top 10 (XSS, SQLi), Penetration Testing, Secure Coding
Tools	Node-RED, Postman, Jest, JUnit, Git, Agile/Scrum

Professional Experience

Backend Lead

Gopher Industries

6 Months

- Architected and deployed scalable backend services using the **.NET Framework**, implementing robust **RESTful APIs** for high-performance system communication.
- Leveraged the **.NET Entity Framework (ORM)** to streamline data access, model complex relationships, and effectively manage **PostgreSQL** databases.
- Designed and prototyped comprehensive API solutions, utilizing **Swagger** for structured and clear endpoint documentation.
- Led the migration of legacy systems to a containerized **Docker** and **Kubernetes** environment on **AWS**.
- Implemented automated backend testing using **Postman**, ensuring high reliability and stability across all service endpoints.

Console Operator

7-Eleven

1 Year

- Managed high-volume transactions with precision, ensuring 100% cash handling accuracy in a fast-paced environment.
- Optimized inventory management processes and delivered exceptional customer service, enhancing operational efficiency and customer loyalty.

Key Projects

Detection and Simulation of GPS Spoofing in Mobile Robots

SIT723/792

- Developed a three-container **Docker** architecture to simulate GPS spoofing attacks on mobile robots using **MAVLink** and **ROS2**.
- Implemented real-time detection modules achieving sub-10ms processing latency and 10Hz sampling rates.
- Validated a dynamic **GPS Trust Index** using sensor cross-validation between GPS, IMU, and odometry in a **PX4-Gazebo** environment.

Automatic Stock Management and Delivery System

SIT314

- Architected a scalable **IoT** platform on **AWS** utilizing **Node-RED** for flow-based data processing and **MQTT** for secure device communication.
- Implemented a robust backend architecture using **Node.js** and **RESTful APIs** to handle real-time inventory tracking and automated delivery scheduling.
- Leveraged **AWS Lambda**, **Amazon S3**, and **DynamoDB** for serverless data processing and scalable storage solutions.

DEV@Deakin - Secure Full-Stack Web Application

SIT313/331

- Developed a responsive frontend using **React JS** and **Chakra UI**, integrating secure authentication via **Firestore Authentication**.
- Built a robust backend service using the **.NET Framework** and **Entity Framework**, implementing secure data persistence and **CRUD** operations with **PostgreSQL**.
- Applied secure coding practices, including **bcrypt** for password hashing and comprehensive **REST API** documentation using **Swagger**.