

Aniket Debnath

Mobile : 0405207627 | Email : rkstaraniket34@gmail.com | [GitHub](#) | [LinkedIn](#) | Melbourne, Victoria, Australia

WORK EXPERIENCE

Full Stack Intern | Yeme Company

June 2024 – Feb 2025

- Designed and implemented an **MVC architecture** for Yeme's split payment functionality, supporting both vendor and client websites.
- Developed a scalable backend using **Node.js** and **Express**, and optimized data processing using **PostgreSQL** and **Prisma ORM**.
- Integrated **Firebase** for real-time communication and state synchronization.
- Implemented secure payment processing with **PayPal** and **Stripe**.
- Delivered a responsive UI with consistent state management and real-time updates.

Software Research Assistant | Haemograph

Oct 2024 – Jan 2025

- Developed high-efficiency Python algorithms to optimize real-time data acquisition and processing from pressure valves in the rheometer.
- Applied Wavelet Transform techniques to enhance the accuracy of time-frequency analysis and reduce noise interference.
- Integrated the solution with Haemograph's Flutter mobile app enabling remote access and distributed data processing via AWS cloud infrastructure.
- Debugged and optimized signals coming from the ESP32 microcontroller to ensure reliable data transmission and system stability.
- Reduced data processing time by 25% through algorithmic improvements and parallel processing strategies.

PROJECTS

[Ecommerce Platform - Auralia](#) | [GitHub](#)

Developed an advanced eCommerce platform with secure payments and real-time shopping cart

- Built an eCommerce platform using **Next.js** and **TypeScript** with secure authentication using **NextAuth.js**.
 - Developed a real-time shopping cart with **session merging** and **state persistence** using **React Query**.
 - Integrated payment processing with **PayPal** and **Stripe**, ensuring secure transactions and order validation.
 - Built a custom admin panel using **shadcn/ui** for product management and inventory tracking.
 - Deployed on **Neon DB** using **Prisma ORM** for scalable database management and real-time updates.
- Tech Stack** : Next.js, TypeScript, Prisma ORM, PostgreSQL, React Query, Tailwind CSS, Docker, Stripe, PayPal

[Disability Care Data-Logger](#) | [Capstone Project](#) | [GitHub](#)

Developed a real-time health monitoring system with ML-driven anomaly detection

- Engineered a health monitoring system using **FastAPI** and **Node.js**, processing PPG data with real-time machine learning models.
- Built a microservice-based architecture on **AWS EC2** with **Docker** and **NGINX** for scalable backend-frontend integration.
- Implemented ML models (**Random Forest**, **SVM**, **KNN**, **XGBoost**, **LSTM**) for anomaly and stress prediction, achieving **92% accuracy**.
- Integrated **ESP32-C6 microcontroller** with pulse oximetry and sensor data storage in **MongoDB**, enabling low-latency data transmission.

Tech Stack: Python, JavaScript, Node.js, FastAPI, TensorFlow/Keras, Docker, AWS EC2, MongoDB, NGINX

EDUCATION

Swinburne University of Technology (Hawthorn, VIC)

Bachelor of Engineering (Honours) in Software Engineering

Graduated December 2024

Relevant Coursework: Object Oriented Programming, Software Deployment, Web Development, Data Structures and Algorithms, Introduction to Artificial Intelligence, Statistics and Computation, Linear Algebra, Network Administration, IoT Programming, Computer Architecture.

SKILLS

Programming Languages: Python, JavaScript, Typescript, C++, SQL.

Frameworks and Libraries: Node.js, Next.js, FastAPI, React, Express, Flask, Redux, Tailwind CSS, Prisma, Mongoose.

Databases: PostgreSQL, MongoDB, DynamoDB, Redis.

Cloud and DevOps: Docker, Kubernetes, Firebase Amazon Web Services (AWS), Git/GitHub, Vercel, Heroku.

CERTIFICATIONS & AWARDS

Swinburne International Excellence Scholarship – Undergraduate (2021)

PTE Academic (Pearson) – 87/90 (Superior English)