

# Brandon Ng Joon Hoe

brandonng2210@gmail.com | [Portfolio](#) | [GitHub](#) | [LinkedIn](#)

## EDUCATION

### Singapore University of Technology and Design

September 2022 - May 2026

- Bachelor of Engineering (Computer Science and Design), Honours - Third Year Student
- GPA 4.5/5.0, Honours w/ Highest Distinction, ASEAN Undergraduate Scholarship, Honours List 22/23
- Teaching Assistant for Algorithms, Designing Energy Systems, and Design Thinking and Innovation

### University of California, Davis - Exchange Program

January 2025 - March 2025

- Coursework: Computer Networks, Programming Languages, Compilers, Human-Computer Interaction

## WORK EXPERIENCE

### Azendian Solutions

August 2024 – December 2024

Full Stack Developer Intern

Singapore

- Built 20+ analytical dashboards using React and integrating REST APIs with Node.js and Express
- Maintained a Next.js, PostgreSQL CMMS by debugging issues and making documentation for handover

## EXTRACURRICULARS

### AggieWorks

January 2025 – Present

Software Engineer

Davis, CA

- Designed a backend system in Go with PostgreSQL to build a new application serving over 35K students.
- Collaborated with product managers, software engineers, and designers to define software requirements.

## PROJECTS & HACKATHONS

### [EShopMicroservices](#)

October 2024 – December 2024

- Developed a backend microservices e-commerce platform using .NET 8, RabbitMQ, Redis caching, and Yarp API Gateway, containerized using Docker and Docker Compose
- Applied Domain-Driven Design (DDD), Command Query Responsibility Segregation (CQRS), and gRPC

### GIC CODETOIMPACT Hackathon

September 2024

- Led a team of five to build a full-stack MERN application in 24 hours for real-time data updates and concurrent processing using WebSocket and atomic operations
- Engineered both backend and frontend, implementing REST APIs, JWT authentication and authorization

### [HR Training Management Web App](#)

May 2024 – August 2024

50.003 Elements of Software Construction, SUTD

- Led development of an HR training app using React (TypeScript), Node.js, Express.js, and MySQL
- Attained 85% test coverage with 133 unit, integration, and end-to-end tests using Jest, Supertest, Cypress

### [E-commerce Bulk Buy Android Java App](#)

January 2024 – April 2024

50.001 Introduction to Information Systems & Programming, SUTD

- Developed a full-stack Android application using Java to streamline and optimise bulk-purchase process
- Applied Java and Object-Oriented Programming concepts and principles to develop app architecture
- Built an IoT smart locker with Raspberry Pi and Python, integrating QR code scanning from app for access

### [Electronic Game Utilising Custom CPU on FPGA](#)

Jan 2024 – Apr 2024

50.002 Computation Structures, SUTD

- Developed a digital version of Loopin' Louie using Beta CPU and assembly, a RISC-based CPU by MIT
- Implemented the custom CPU and its Instruction Set Architecture on a Xilinx Artix 7 FPGA using Lucid.
- Managed button inputs and routed output to external displays via register-mapped I/O on FPGA.

## SKILLS

- **Languages:** Python, Javascript, Typescript, Java, Go, C, C#, SQL, HTML, CSS
- **Frameworks & Libraries :** Gin, Flask, React, Node.js, Next.js, Express.js, .NET
- **Databases & Messaging:** PostgreSQL, MySQL, SQLite, MongoDB, Redis, RabbitMQ
- **Developer Tools & Platform:** Git, GitHub Actions, Docker, Linux