Houman Wai

EDUCATION

National University of Singapore (NUS)

BACHELOR OF COMPUTING (HONOURS), COMPUTER SCIENCE

Ngee Ann Polytechnic, Singapore

Apr 2019 - Apr 2022

DIPLOMA IN INFORMATION TECHNOLOGY

GPA: 3.9/4.0 (Diploma with Merit)

Awards: Gold Medalist in Polytechnic-ITE Olympiad in Informatics (PIOI) 2022, IMP Idea Champion 2019

WORK EXPERIENCE

NUS | RESEARCH ASSISTANT

Singapore | Jun 2022 - Aug 2022

Aug 2024 - May 2027 (Expected)

Technologies: React Native, Node.js, Express.js, Firebase, Docker, GCP

- Single-handedly developed a React Native mobile application from scratch, leveraging **Firebase**, **Express.js**, and **GCP**, to empower users in tracking and controlling their smoking habits.
- Implemented and deployed an AI-powered Chatbot with **Dialogflow ES** to provide autonomous healthcare assistance, resulting in a 30% reduction in operational costs and improved accessibility.

WORKS | SOFTWARE ENGINEER

Singapore | Aug 2021 - Oct 2021

Technologies: Flutter, Firebase, Solidity, Node.js, Express.js, Docker, GCP

- Engineered a digital wallet application from scratch using **Flutter**, **Firebase**, and **GCP**, achieving MVP within 3 months to facilitate secure blockchain transactions on the WORKS platform.
- Implemented JWT Single Sign-On to integrate Zendesk support directly into the mobile app, reducing ticket resolution time by 75%, from four days to one.
- Successfully migrated the existing Flutter codebase to support null safety, leading to a 30% decrease in runtime errors and a 7% reduction in code size.

WORKS | Mobile Application Developer Intern

Singapore | Mar 2021 - Aug 2021

Technologies: Flutter, Firebase, Node.js, Express.js, GCP

- Overhauled and enhanced mobile applications for over 100,000+ users on online freelancing marketplaces, leveraging the **Flutter-Firebase** framework.
- Automated the payout process by integrating payment network APIs, cutting payout time from two days to minutes for freelancers worldwide.
- Enhanced the internal payout system to support over 2,500 users across 25+ countries, enabling multi-currency payouts in local currencies to facilitate seamless fund disbursement globally.

PROJECTS

NEARBYFEED ()

REACT NATIVE, EXPO, NESTJS, REDIS, POSTGRESQL, DOCKER

- Developed full-stack features such as user authentication, geolocation-based posts, social interactions, media uploads, and profile management.
- Implemented a scalable NestJS/PostgreSQL RESTful API with real-time updates and JWT session management.

STREAMIC ()

REACT.JS, NEXT.JS, EXPRESS.JS, SOCKET.IO, MONGODB, HEROKU

• Leveraged **Socket.io** to build an online video streaming site which offers synchronized viewing and real-time chats.

SKILLS

Languages: Python, Dart, JavaScript/TypeScript, C++, Swift, Java

Frameworks: Flutter, React, React Native, Next.js, Express.js, NestJS, Socket.io, Tailwind CSS

Databases: Redis, MySQL, PostgreSQL, MongoDB

Technologies: Firebase, Google Cloud Platform, Docker, Kubernetes, Vercel, Expo