

Jeriel Chan Zhi Yang

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EXPERIENCE

Software Engineer | Protechs Nutrition, April 2024 - Current

- Currently spearheading the development of an enterprise-level fitness tracking and social interaction app, integrating with Protechs Nutrition's protein-shake vending machine available nation-wide via API calls.
- Utilized Firebase for backend development, handling user authentication, data storage, and real-time updates.
- Maintaining main website.

Technologies: React Native, TypeScript, Redux, Firebase

Software Developer | Omega City, October 2023 - March 2024 (Part-Time)

- Developed a real-time gaming platform for learning code, enhancing peer-to-peer collaboration.
- Developed previous MVPs using open sourced Reldens and Unity3D.
- Developed basic game skeleton, maps, game UI, scoring system and scoreboard
- Implemented advanced features like server-client state synchronization, player movements, and chat system.
- Created pitch deck securing \$10,000 VIP@SOC start-up venture grant, and Hangar start-up incubation programme.

Technologies: TypeScript, Phaser, Parcel, Node.js, Express.js, Colyseus

EDUCATION

National University of Singapore

Bachelor of Computing in Computer Science and Mathematics 2nd Major, Graduating in May 2026

TECHNICAL CO-CURRICULAR ACTIVITIES

Front-End Mobile Developer | Sheares Hall, May 2023 - February 2024

- Developed a mobile app for Sheares Hall residents featuring essential services and event information.

Technologies: React Native, Expo, Firebase

Telegram Bot Developer | NUS Enterprise, December 2023 - Current

- Developed a telegram bot for managing hotdesking and administration for NUS Enterprise, entrepreneurial arm of NUS.

Technologies: Python, Flask, APScheduler, Python-Telegram-Bot

Robotics Club | 2008 - 2017

- Programmed and built various robots; sumo bots, bipedal robot, and a self-sufficient rubbish collecting and sorting truck.
- Participated in National Junior Robotics Competition and Robofest.

TECHNICAL PROJECTS

Smart Personal Assistant (SPA) | Orbital NUS 2023 | Gemini (Intermediate Level)

- Developed a comprehensive Flutter productivity mobile application
- Implemented machine learning features using TensorFlowLite for task suggestions, providing an optimal task sequence.
- Built an Artificial Intelligence chatbot using rule-based mechanics and ChatGPT API to facilitate natural language processing and voice commands.
- Utilized Firebase for backend development, handling user authentication, data storage, and real-time updates.
- Conducted extensive testing, including unit, widget, and user testing, to ensure application stability and reliability.
- Gathered user feedback from students and professionals to refine usability and functionality.
- Successfully deployed the application on the Google Play Store for Android devices.
- Created detailed documentation and UML diagrams to illustrate the application's structure and flow.

Technologies: Flutter, Firebase, Python, TensorFlowLite, GitHub, GetX, BLoC, Mockito, ChatGPT api

Q.Now | Hackathon Champions | MedTech App comparing waiting time of clinics during Covid for IEEE iNTUition 2022

NexusWrap | Hackathon 3rd | Cross-Chain Bridging Platform for NUS Fintech Summit 2024

TransportGPT6A | Traffic Situation GPT Chatbot using OpenAI api for NUS-NCS AI Challenge

dGtal-Registry | Fullstack Blockchain digital asset copyright protection platform for NUS LifeHack 2024

TriveTribe | Fullstack gamified volunteer tracking platform for NUS Hack4Good 2024

HoloLens Sustainability App | Developed an eco-label learning AR application for DSTA BrainHack 2024
TechNews WebScraper Telebot | Scrapes TechCrunch.com for latest start-up news, uses AWS Lambda and CloudWatch
Weather Forecast Website, FreeCodeCamp Projects, Personal Website | Frontend Projects using HTML, CSS, JS
iOS To-Do List Application | Todolist using Swift
2048 Game | Remake of the famous 2048 game using HTML, CSS, JS. Hosted on my personal website.
RollABallUnity | Simple 3D Unity game where a player controls a ball to collect coins
Nightmare3rdPersonShooterUnity | Third-Person Shooter Game in Unity
WebForum | Basic webforum project using Typescript, Ruby on Rails, PostgreSQL, RESTful API

TECHNICAL SKILLS

Languages

Java • JavaScript • HTML • CSS • Python • Dart • C# • Swift • Solidity • Python

Libraries, Frameworks, Tools

React • Phaser.js • Unity • TensorFlow(Lite) • Flutter • Express.js • Firebase • PostgreSQL • AWS • Git

ACHIEVEMENTS

IEEE iNTUition v8.0 Hacathon 2022 | Hackathon Champions
NUS Venture Innovation Programme 2024 | Secured \$10,000 start-up grant and Hangar Incubation
NUS Fintech Summit 2024 | 3rd Place, Offered NUS-AIDF Fincubator Incubation
NUS GroundZero Startathon 2024 | Finalist, Top 3 in Sustainability Track, Offered Hangar Incubation
DSTA XRPerience 2024 | Finalist
Singapore Math Olympiad | Bronze

MISC

Leadership

- Serving as an Officer Commanding for my reservist troop in the Singapore Police Force, training and preparing a troop of 60 for anti-riot, counter-terrorism and policing duties.
- Served as Operations Director for NUS Entrepreneurship, led a team of 10 to organise a 3 day hackathon.
- Served as Deputy Head of Community Student Leaders, led a CCA of 80 for social good volunteering projects.