

JOSEPH HEE

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PROFILE

Passion for problem solving with technology. Believes in "iterate,iterate,iterate". Enjoys communication and working in a team to bring ideas together. Keen on exploring new approaches to problems, learning more about bringing MVP to an enterprise product

EDUCATION

Singapore Management University Singapore
Bachelor of Science (Information Systems) Aug 2021 - May 2025
Major in Information Systems
Dual Track Business Analytics, Digitalisation and Cloud solutions
GPA : 3.68/4.00
Relevant experience (In order of confidence) : Scrum, Golang, TypeScript, React, Java, Springboot, Flask, Docker , ER Modelling, Logical Diagrams, SQL, PHP

RELATED EXPERIENCE

Carousell Brisbane
Software Developer (Web) Jan 2024 - Present

- Addressed and deprecated blue-imp package for image downscaling, replacing package function using native browser support. Reduced page chunk size of 21 routes by 11kb
- Image cropping and rotation component for image tagging feature on desktop. Wrote integration tests with React Testing Library and fixed multiple bugs during release
- Diagnosed issues merchants were facing with reading listing data through Carousell API, implemented new endpoints in Golang microservice to enable filtering by status
- Collaborate with designers, marketing, engineers to clarify crm processes and implement updates to templates

Upwork Brisbane
Software Developer Jul 2023 - Present

- Identified software architecture based on client's requirements, performed 2 major software changes to solve problem client is facing
- Built an online form with Typescript React Framework to create a modular software solving user specific problem
- Engineered software implementation 3 times for one project, revamp code structure and modularity based on customer feedback

GoBook Class Booking System Singapore Management University
Microservice Developer Mar 2023 - Apr 2023

- Designed Microservice Architecture with Cloud Native deployment to construct a full stack web application within 2 months
- Recognised as top three projects across year 2 cohort and present enterprise solution to VMWare
- Analyzed 2 large competitor sites Airbnb and Netflix with focus on Cloud Native Technology to implement complex systems
- Experimented and executed Kafka Event Streaming service to perform real time Content-Based recommendation for users

Form Management System Singapore Management University
Full Stack Developer Jan 2023 - Apr 2023

- Adopted MVC behavioural design pattern to create a Springboot Vue full stack web application within 2 months
- Spearheaded design of Springboot backend, established routes for more than 3 controllers supporting frontend requirements

Coders Assembly Singapore Management University
Mentor for Web Application Development IS216 Jan 2023 - Apr 2023

- Organised focus group biweekly sessions with 5 first year students to discuss php problems
- Guided students 40 students during Web Application Development Workshop on php fundamentals classes , objects , database connection

Mentor for Intro to Programming IS111 Aug 2022 - Nov 2022

- Organised focus group biweekly sessions with 5 first year students to discuss python problems
- Lead code along sessions in python workshop for 40 students on python fundamentals lists, dictionary, file reading

Singapore Management University Singapore Management University
Disaster Tweet Research Assistant Nov 2022 - Jan 2023

- Conducted independent research into different applications of relation extraction on over 400 tweets
- Utilized supervised learning and rule-based techniques to extract numerical values to develop a precise deep learning model for Relation Extraction with proficient use of Tensorflow Library. Made use of Class Weighting to handle heavy class imbalance
- Implemented deep learning models using Conv1D and Lstm layers to extract relation from rule based generated dataset with an accuracy of 93%

Escapify Travel Web Application

Singapore Management University

Full Stack Developer

Oct 2022 - Nov 2022

- Practiced MVVM software design to build a full stack web application within 3 weeks
- Consolidated three different travel related APIs (Hotels, Destinations, Google) to develop a comprehensive platform for travellers
- Enforced secure coding practice using environment variables to store API Keys, scored A- on ImmuniWeb web security test with 2 software issues
- Leveraged on firebase realtime snapshot update capability to create an interactive experience between users, comments are updated immediately and supports multiple users, 5 users posted travel experience

CO-CURRICULAR ACTIVITIES

Escape Plan

Singapore

Developer

Jun 2023 - Present

- Analysed 3 different travel websites and suggested changes to improve features and usability
- Employed 7 user centered design principles to improve usability of itinerary planner feature with drag and drop functionality
- Bootstrapped MVP to live testing environment in 3 days operating Typescript and Firebase to support quick iteration and user testing

Personal Portfolio Website

Singapore

Developer

Apr 2023 - Apr 2023

- Evaluated 10 different portfolio websites and best practices, explore different content management tools in blogging scene
- Constructed a Portfolio website with TypeScript React using NextJS Framework, using contentlayer as a content management tool to streamline process of updating projects and articles
- Improved knowledge on Typescript, React developing Type safe web applications

Zero To Mastery Tensorflow Developer Course

Brisbane

Developer

May 2022 - Jul 2022

- Implemented multi-class image classification neural networks on Fashion MNIST and Food101 dataset, analysing effectiveness of Convolution layers and pre-trained EfficientNetB0 models on over 101000 food images. Beat
- Executed natural language processing neural networks on PubMed data, explore differences in pre-trained Glove embedding vs Universal Sentence Encoder to classify 202000 medical abstracts in sequence sentence classification
- Utilized time series N-BEATS neural network architecture based applied on 4 years of Bitcoin Price data to predict next day bitcoin prices based on previous week

SKILLS & INTERESTS

Technical Skills : Golang, Kubernetes, Java, Python, Javascript, Typescript, C, Php, Firebase, MySQL, Django, Springboot

Language : English (Native), Chinese (Fluent)

Interests : Running (I have a dedicated section on my personal website) , Cooking (Recently more korean/ asian food/ slow cooker recipes)

CERTIFICATIONS

- Google Tensorflow Certification
- Oracle Certified Foundations Associate, Java
- Heicoders Academy AI200 Certification in Applied Machine Learning
- Heicoders Academy AI100 Certification in Python Programming and Data Visualisation