TRAN QUANG THANH

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EDUCATION

National University of Singapore *Aug 2018 – May 2022*

- Bachelor's degree in Computer Engineering (Honours with Distinction)

WORK EXPERIENCE

Tempest *Mar 2022 – Feb 2024*

Software Engineer

(Phoner: a VoIP app with around 10 million users; VPN Vault: a VPN app with around 1 million users)

- Implemented mobile pages and applied new designs to various old components in Java and Kotlin with View Binding (Android) and Swift with Texture and UIKit (iOS)
- Optimised API call to enhance user experience such as shortening onboarding and purchasing time
- Applied MVVM to all components in both Android and iOS
- Integrated third-party library for A/B testing on designs, providing insightful data about impact on user retention, subscription, and motivation to use app
- Implemented data analysis to evaluate and detect 30 new prohibited keywords in text messages using Python, improved true positive rate by 10% and reduced manual review by 20%

Infineon Technology Asia Pacific *Jan 2021 – Jul 2021*

Engineering Intern

- Researched and applied machine learning algorithms including CNN and LSTM to auto generate chip testing sequences, created a model to produce executable commands for automatic chip testing
- Analyzed chip testing dataset using Python library Pycaret and Tensorflow to verify test result, achieved R2 score of over 0.8

PROJECTS

Undergraduate Research Program *Jan 2020 – Nov 2020*

(Title: Edge processing on Internet of Things)

- Analyzed 1GB of time series accelerometer and gyroscope sensors reading with Python to identify vibration in a closed room.
- Collected reading of CC2650 sensor on different objects and transmitted to server using Bluetooth Low Energy protocol with C and Python
- Researched and applied cumulative sum (CUSUM) algorithm to classify states of objects including stationary and moving, achieving classification accuracy of over 90%.
- Developed machine learning models using Python Tensorflow to classify objects from acceleration and gyro data, reaching accuracy of 80%

Food Delivery System *Feb 2020 – Apr 2020*

(Github: https://github.com/cs2102-project-group28/backend)

- Programmed a backend system for a food delivery application to connect users, restaurants, and shippers
- Created database queries with PostgreSQL and designed API with Python Flask backend server to support functions including managing users, menu, order data and order status
- Designed an entity-relationship diagram to manage the backend database

SKILLS

- **Programming Languages:** C/C++, Python, Java, Javascript, Kotlin, Swift, SQL
- **Technologies:** Android, iOS, React, FlaskAPI, PostgreSQL, MongoDB, NodeJS, Pandas, PyTorch, TensorFlow, Matplotlib