

# CHIA YONG KANG

+65 98774639 • [chiayongkang@hotmail.com](mailto:chiayongkang@hotmail.com) • [github.com/ExtremelySunnyYK](https://github.com/ExtremelySunnyYK) • [Linkedin](#) • [Website](#)

## EDUCATION

### Singapore University of Technology and Design (SUTD)

*Expected Graduation: Aug 2023*

- Bachelor of Computer Science (Honours) with a focus on Artificial Intelligence and Algorithms
- Awarded the [Science Technology Entrepreneurship Program \(STEP\)](#) Scholarship for being the top 5% of the students.

## WORK EXPERIENCES

### [Treehouse Finance](#) | Software Engineering Intern

Aug 21 - Present

- Treehouse Finance is a blockchain platform that provides risk management solutions to decentralized finance users
- Built portfolio optimizer by comparing Efficient Frontier, Hierarchical Risk Parity model, and Greedy algorithm.

### [Matchin](#) | Tech Co-Founder

Sep 20 – Present

- Matchin is a digital mentoring platform for students powered by AI and backed by investors such as SMU Incubator and Enspire.VC
- Led the data science team of 3 in building a personalized recommendation system to improve user engagement
- Designed and implemented a hybrid mobile app (React Native) and backend server (Django, Flask).
- Utilized : REST APIs, database (PSQL), payment (Stripe), deployed on Google Cloud

### Rakuten Viki | Software Engineering Intern (Android)

May 21 - Sept 01

- Redesigned and built the analytics logger submodule using Kotlin Multiplatform, reducing the size of codebase by 40%
- Deployed the submodule to production, smoothly migrated deployment pipelines, and set up continuous integration
- Redesigned relational database for event logging to improve query speed with SQLDelight
- Improved team's development efficiency through automated scripts to optimize assets and codebase

### DSO National Laboratories | AI Engineering Intern

Feb 20 - May 20

- Led and designed a machine learning project that reduced human efforts in network security by 40%
- The project was well-received by the management team. More resources have been allocated to grow the project
- Utilized: Python, Tensorflow, Genetic Algorithms, Natural Language Processing

### Freelance Software Developer

Sep 18 – Sept 20

- Developed an augmented reality android app for construction which reduced time spent on-site for civil engineers by 15% with AR Core
- Built a product recommender for an industrial manufacturing SME, that boosted conversions by 20%

## TECHNICAL SKILLS

- **Languages:** Python, Java, Javascript, SQL, HTML, Kotlin, Golang, C++, PHP, Swift
- **Libraries, Framework, and Tools:** Flask, Django, Android, ReactJS, Flutter, MongoDB, Linux, Tensorflow, Firebase, Git

## FEATURED PROJECTS

### [Habit Correction App](#) (Winner, NUS Hack&Roll 2021)

- An iOS App which notifies users when they are displaying shaking their legs.
- Built a telegram bot that integrates with the iOS app to send notifications with Python and Flask

### [Automated Detection for Blindness Webapp](#)

- Built and deployed a web app that diagnoses a patient's eye condition with Python Flask, Tensorflow, ReactJs and OpenCV
- Reduced diagnosis time by 70%, and achieved a detection accuracy of 90% (which is 10% higher than humans)

### [Smart Grocery Management System to reduce food wastage](#) (1st Place, Junction X Asia 2020)

- Designed and built the backend microservice and machine learning system for waste detection with Python, Django, Flutter, MongoDB and OpenCV
- Selected out of 50 teams to represent Singapore in the United Nations (UN) environment hackathon

### [Automated Protocol Reverse Engineering with NLP](#)

- Improved accuracy of Reverse Engineering of Network Protocol by 20% with Machine Learning and Natural Language Processing

## ACHIEVEMENTS

- Winner for Hack&Roll 2020, 2021 Hackathon • First-place for JunctionX Hackathon • Winner LifeHack 2020.2021
- Finalist and Winner of \$5000 Environmental Grant from South-West CDC • Second-runner up for SUTD-CGH Challenge

## LEADERSHIP

### Director of Technology | Google Developer Student Club

- Led and taught technical workshops on Git, Firebase, React and Linux.