# **Chia Yong Kang**

I am passionate about Software Engineering, Agile Development and how it can benefit the world.

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#### **EDUCATION**

#### Singapore University of Technology and Design

- Major in Computer Science
- Science Technology Entrepreneurship Programme (STEP) Scholar
  - STEP is an undergrad and direct masters scholarship programme that is offered to outstanding students, immersing them in a one year overseas work-study exchange in Silicon Valley and Zhejiang China.

#### **WORK EXPERIENCE**

#### **Software Research Intern at DSO National Laboratories**

Feb 2020 - May 2020

Expected Graduation: 2024

- · Spearheaded a new cybersecurity initiative to bolster Singapore's national security with Machine Learning.
- Training and fine-tuning of state-of-the-art deep-learning natural language processing models for named entity recognition tasks.
- Improved accuracy of new cyber security measures by close to 40%.
- · One of the few chosen interns invited to present research to the cross functional cybersecurity teams.

#### **Freelance Software Developer**

Sep 2018 - Current

- · Completed 3 Web Development projects and 1 App Project
- Create an Augmented Reality Android App for construction firm, reducing time spent on site by 15%
- · Added a product recommender on a SME business(million) website which boosted conversion by 20%.

#### **TECHNICAL SKILLS**

LanguagesSoftware EngineeringData SciencePython • Java • Javascript • HTML•Python Flask • Android• ReactJS •Numpy• Pandas • Scikit-Learn •CSS • SQL • PHP • C++Flutter • MongoDB • Azure • LinuxTableau • Tensorflow

#### **AWARD WINNING PROJECTS**

Smart Grocery Management System (1st Place, Junction X Asia 2020)

June 2020 — June 2020

- Emerged as champion against 150 teams all around Asia (China, Vietnam, Korea)
- Only team out of 50 teams chosen to represent Singapore in UN hackathon in Korea
- · An IOT which deals with household waste management using OpenCV
- Utilised: Python, Flask, Flutter, MongoDB, OpenCV(YOLO), Azure

#### Smart Glasses for the Visually Impaired (1st Place, NUS Hack&Roll)

Jan 2020 — Jan 2020

- Emerged as champion out of 800 participants from all around the world.
- Developed glass for the visually impared to "see" emotions with AI
- Utilized: Python, Raspberry Pi, Azure Cognitive Services

#### **Automated Detection for Blindness Webapp** (Honourable Mentions, Lifehack 2020)

Aug 2020 — Aug 2020

- Fourth place out of the 200 teams that were competing.
- A Web App that allows people to upload an image of their eye and receive diagnosis using Keras Tensorflow
- Reduced Diagnosis time by 70%, improved accuracy from humans by 10%
- Utilized : Python, Flask, Tensorflow, Keras

## **PERSONAL PROJECTS**

# **Automated Protocol Reverse Engineering with NLP**

Feb 2020 — May 2020

- Improved an open source project on Cyber security
- Increased accuracy of Reverse Engineering by 40% with Genetic Algorithms and NLP
- Utilised: Python, Scikit Learn, Pandas

#### **Augmented Reality App for Construction**

Oct 2019 - Jan 2020

- · An app that allows them to quickly measure dimensions and generate a quote for clients
- Helped construction firms save 15% time in inspection of construction sites.
- · Utilized: Java, Android, ArCore, PostgreSQL

### **ACHIEVEMENTS**

- Winner for HacknRoll 2020 Hackathon Winner for HackJunction Hackathon Honorable Mentions LifeHack 2020
- Environmental Grant from South-West CDC Third for SUTD-CGH Challenge