Lee Hang Wee

Mobile: +65 9753 0450 | Email: leehangwee@gmail.com | GitHub: https://github.com/hwlee96/

PERSONAL PROFILE

A greatly motivated Singapore University of Technology and Design undergraduate, with strong interests in cloud computing, distributed systems and cybersecurity. Strongly believes in and practices test-driven development with end usability in mind, especially in maximizing security, fault tolerance and efficiency with DevOps principles. A determined individual, but open-minded and flexible to changes in environment, with exceptional leading and teamwork ability.

EDUCATION

Singapore University of Technology and Design — **Singapore**

- Bachelor of Engineering (Information Systems Technology & Design), Honours — **May 2017 to Present**
- Expected date of graduation: September 2021
- Relevant courses: Introduction to Algorithms, Introduction to Information Systems & Programming, Machine Learning, Foundations of Cybersecurity, Database and Big Data, Elements of Software Construction, Probability & Statistics

TECHNICAL EXPERIENCE

Singapore University of Technology and Design — **Singapore**
Social Cataloging Web Application for Books — **Sept 2019 to Dec 2019**

- Incorporated DevOps automation in provisioning and deployment of a cloud-based distributed system with Amazon AWS EC2, Hadoop and Spark through Unix bash scripts and Boto3 (AWS SDK for Python).
- Implemented SQL(MySQL) and NoSQL (MongoDB) CRUD operations for the books and their corresponding reviews.
- Implemented automation of ETL (extraction, transformation, loading) of relevant data from databases (MySQL, MongoDB) in production system to distributed file system (HDFS) Hadoop in analytics system with bash scripts.
- Contributed to Spark-based data analytics applications (Pearson correlation, TF-IDF) written in Python and with PySpark library.

Singapore University of Technology and Design — **Singapore**
Capture-The-Flag Coursework — **Dec 2019 to Dec 2019**

- Collaborated as a team of 4 SUTD colleagues in the Capture-The-Flag (CTF) event in 50.042 Foundations of Cybersecurity course by designing our own CTF challenge and worked well together to solve the other teams' challenges.
- Applied cryptography and digital forensic techniques in solving CTF challenges.
- Achieved the top position among 13 teams in the scoreboard, in terms of the number of CTF challenges solved within the duration of CTF coursework.

Singapore University of Technology and Design — **Singapore**
Accenture ACNAPI Ticketing CRM Web Application — **Jan 2019 to May 2019**

- Spearheaded end-to-end software engineering process from construction of user requirements to UI/UX mockups to demonstrating full-stack development capabilities and software testing practices.
- Formulated core and bonus user requirements and business logic (that adds value to the ACNAPI) and composed UML (e.g. class, sequence, use case) diagrams according to them.
- Executed the back-end server and database CRUD operations using GraphQL, ExpressJS and MongoDB.
- Implemented and integrated with front-end features that enhances user experience and efficiency with React.
- Performed unit, integration and robust testing for CRUD operations with Mocha.
- Acknowledged by ACNAPI client for clear, thorough implementation of core features and to have the cleanest UI/UX among 18 SUTD teams participating in the same project.

Singapore University of Technology and Design — **Singapore**
Family Medicine Health-I-Hackathon — **Jan 2018 to present**

- Participated in the Family Medicine Health-I-Hackathon, organized by the SingHealth Duke NUS Family Medicine Academic Clinical Programme to promote and improve hand hygiene compliance and achieved first place among 9 teams.
- Implemented an end-to-end, computer-vision-focused, IoT system prototype that, with least disruption to clinical workflow, detects, reminds and monitors hand hygiene performance with OpenCV and Python.
- Invited to present in the 2019 Family Medicine Academic Clinical Programme Research and Innovation (FAMARI) exhibition.

LANGUAGES AND TECHNOLOGIES

- Programming languages: Python (proficient), Java (familiar), JavaScript (familiar)
  - Familiar with Libraries / Frameworks: Flask, TensorFlow, React, ExpressJS, Mocha, GraphQL, Selenium, JUnit
  - Familiar with Databases / Distributed Systems: MongoDB, MySQL, Hadoop, Spark
  - Familiar with DevOps tools: Terraform (Configure/Provision), Git (Version Control), Docker (Containerization), Jenkins (CI/CD)