

Dongwoo **HAN** | Email: [donghan37@gmail.com](mailto:donghan37@gmail.com) Phone: +65 9861-3606

## EDUCATION

**NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE**

**Aug 2017- Dec 2022(Ongoing)**

**BACHELOR OF ENGINEERING (COMPUTER SCIENCE)**

- Expected Honours (**Highest Distinction**), Current CGPA: **4.61/5.00**
- Digital Skills: Python, SQL, NoSQL, Agile Dev, VCS, Jira, Java, REST API, Dynatrace
- Framework/Library Skills: Flask, TensorFlow, Django, NLP, SQLAlchemy, FastAPI, MongoDB

## WORK EXPERIENCE

**Machine Learning Full Stack Developer at SAP Asia AI Business Services**

**Aug 2021 - Dec 2021**

- Developed with Flask Backend with PostgreSQL and MongoDB
- Debugged errors and implemented solutions and tested using PyTest and Kibana
- Worked in an agile CI/CD environment using Jira as a Scrum Master
- Implemented Dynatrace, a monitoring solution, which improved efficiency of error debugging
- Achieved 2nd Runner up in Intra-organization Hackathon by developing a sentiment-based news aggregator
- Skills Demonstrated: Python, Debugging and Testing, PostgreSQL, Dynatrace, Jira, GitHub in Enterprise level, Adaptability, Inter-personal Skill

**Student Assistant in School of Economics at NTU**

**May 2021- Jul 2021**

- Created Q-Learning using Python inside the game of Prisoner's dilemma
- Attempted in designing a Reinforcement model that does not possess an exponential discounting behavior
- Skills Demonstrated: Reinforcement Learning, Creativity, Generative idea

## PROJECT EXPERIENCE

**FYP: Exploring potential of Deep Reinforcement Learning in virus control**

**Jan 2022-Ongoing**

- Modelling spread of COVID-19 in a vaccinated environment space using OpenAI Gym
- Training Deep Reinforcement Learning Model: DQN, DDQN, PPO
- Skill Demonstrated: Python, Deep Reinforcement Learning

**Backend Developer for Bus live Location sharing**

**Feb 2022**

- Developed Backend REST API using FastAPI
- Created Database using MongoDB
- Deployed website online using Heroku
- Skills Demonstrated: Python, FastAPI, MongoDB, Heroku

**Machine Learning project in Sberbank Housing Pricing**

**Jan 2021 – Apr 2021**

- Performed Data Preprocessing, Data Exploration and Data Analysis using Numpy and Pandas
- Scaled and normalized data using Scikit-Learn
- Prepare different data preprocessing function appropriate for each Machine Learning algorithms
- Skills Demonstrated: Python, NumPy, Pandas, Scikit-Learn, XGBoost, ML Algorithms

**Backend Developer in building a robotic system in 8-men team**

**Jan 2021 – Apr 2021**

- Constructed a robotic system with autonomous exploration and image recognition
- Built the main exploration algorithm and the GUI of the interface
- Selected the most efficient exploration algorithm among several exploration algorithms
- Skills Demonstrated: (Backend) Java, Search Algorithms & (Frontend) Java Swing

**Network Science: Analysis of NTU SCSE Faculties' network**

**Jan 2021 – Apr 2021**

- Web-scraped data from DBLP, a computer science bibliography site and constructed a network using NetworkX
- Analyzed the network to find network type and any correlations
- Skills Demonstrated: (Backend) Python, NetworkX, Web Scraping, XML & (Frontend) Python GUI & matplotlib

**Lead Developer in Course Planning Website**

**Dec 2020 – Apr 2021**

- Created Backend API using Flask and developed course planning algorithm
- Used during my next semester's course planning
- Skills Demonstrated: Flask, SQLite, Administration System, Algorithm, Web Scraping

## ADDITIONAL EXPERIENCE

Languages: Proficient in English and Korean & Conversant in Chinese

Online Course: TensorFlow 2.0: Deep Learning and Artificial Intelligence (Udemy),  
Machine Learning A-Z: Hands-on Python (Udemy)

Favourite coding keyword: *import*

- Resembles my ability to absorb, adapt to new information and apply it to solve the problem