

# TAN HAO HAO

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## EDUCATION

- **Nanyang Technological University, Singapore** *August 2015 - July 2019*  
B.Eng in Computer Science, CGPA 4.88/5.00, Dean's List (AY2015, AY2016)
  - **Selected Coursework:** Algorithms & Data Structures, Software Engineering, Information Retrieval, Databases, Operating Systems
  - **Co-curricular Activities:** Vice Chairperson, NTU Piano Ensemble; Adjudicator, 8th Asia-Pacific Intersivity Chinese Debate Tournament; Best Peer Tutor Award, School of Computer Engineering
- **The Chinese University of Hong Kong, HKSAR** *September 2017 – December 2017*  
Exchange Programme, Computer Science
  - **Selected Coursework:** Advanced Algorithm Design, Artificial Intelligence

## EXPERIENCE

- **PayPal Singapore - Software Engineer Intern** *January 2018 – June 2018*  
Tech Stack: Java Spring, RESTful APIs, SQL, Jenkins, Git
  - Work as back-end engineer in Risk Business Obligation team to develop business solutions for enforcing compliance over fund transactions online
- **Temasek Laboratories, NTU – Research Assistant** *February 2017 to July 2017*  
Project Title: Sentiment Analysis on Singlish (Colloquial Singaporean English)
  - Worked on expanding Singlish SenticNet, a Singlish concept database for sentiment analysis
  - Developed a phonetic-based converter to normalize spelling variants of Singlish concepts
  - Built an information retrieval system to crawl existing online Singlish Dictionary to expand SenticNet

## PROJECTS

- **Automated Negotiation Agents Competition 2017** *August 2016 to July 2017*  
Undergraduate Research Project (URECA)
  - Second place of the Diplomacy Game League, a strategy board game using automated negotiation
  - Designed a heuristic-based negotiation agent using “hostility VS neediness” strategy
  - Invited to the International Joint Conference of Artificial Intelligence (IJCAI 2017) for presentation
- **Multidisciplinary Design Project** *January 2017 to May 2017*  
Semester Team Project
  - Designed a wall-hugging algorithm and an A\* search algorithm for a robotic system to run maze exploration and fastest path respectively
  - Utilized Raspberry Pi to coordinate between subsystems including Arduino board and Android remote controller device
- **Website Development & App Design for Quiz Challenge** *June 2016 to January 2017*  
1<sup>st</sup> National Tertiary Chinese Reading Competition
  - Built the official website for the competition using Bootstrap framework
  - Designed a login portal for participants to update particulars, view questions and submit answers
  - Designed an interactive program using C++ for Bingo-like Quiz Challenge

## TECHNICAL SKILLS

- **Operating System** : Windows, Linux
- **Languages** : Python, Java, C, C++
- **Web development** : HTML5, CSS3, JavaScript, jQuery, PHP, Bootstrap, Pug (formerly Jade)
- **Database and Version Control** : MySQL, MS SQL Server, Git
- Familiarity in TensorFlow, Scikit-learn, NumPy and Matplotlib