

## EDUCATION

<b>Nanyang Technological University, Renaissance Engineering Programme</b> <i>Bachelor of Engineering Science (Computer Science), Minor in Mathematics and Master of Science in Technology Management</i>	Aug 18 – Present
<ul style="list-style-type: none"><li>First Class with CGPA of 4.83/5.0 (96.6%)</li><li>Awarded the Nanyang Technological University's Renaissance Engineering Programme Scholarship.</li></ul>	
<b>Hwa Chong Institution, Science and Math Talent Programme</b> <i>5 Distinctions in GCE 'A' Level Examinations with Merit in H3 Research</i>	Jan 14 – Dec 15
<ul style="list-style-type: none"><li>Awards: Hwa Chong Outstanding Student Award, A*STAR Junior College Science Award.</li></ul>	

## WORK EXPERIENCE

<b>Nanyang Technological University (Dauwels Lab)</b> <i>Student Researcher</i>	Aug 19 – Present
<ul style="list-style-type: none"><li>Studied generative models, in particular generative adversarial networks and variational auto-encoders, and their application in explainable artificial intelligence.</li></ul>	
<b>Advanced Micro Devices</b> <i>Co-Op Engineer (Product Engineering Team)</i>	May 19 – Aug 19
<ul style="list-style-type: none"><li>Involved in new product bring-up, gaining knowledge on APU and CPU advanced test methodologies and hands-on experience on advanced test platforms.</li><li>Applied unsupervised machine learning methods, such as Autoencoders, DBScan Clustering and K-Means Clustering, to identify and label defect patterns in silicon wafers, aiding in yield analysis.</li><li>Developed Python and Perl scripts, automating data cleaning, analysis and visualization of test data.</li></ul>	
<b>National University of Singapore (Advanced Batteries Laboratory, Department of Physics)</b> <i>Student Researcher</i>	Mar 14 – Mar 15
<ul style="list-style-type: none"><li>Researched on novel methods of synthesis of anode materials for lithium-ion batteries, culminating in the paper "Modifications to the urea combustion synthesis of ZnCo2O4 material as high capacity anode for lithium-ion batteries".</li><li>Trained in laboratory tools and processes.</li><li>Conducted collection, statistical analysis and interpretation of data.</li></ul>	

## PROJECTS AND EXPERIENCE

<b>Kaggle: Digit Recognizer</b>	Dec 19
<ul style="list-style-type: none"><li>Built convolutional neural network with Keras Sequential API for digits recognition trained on MNIST dataset.</li><li>Performed data augmentation techniques, such as rotation, shifting and zooming, to improve accuracy and reduce overfitting.</li></ul>	
<b>Kaggle: Credit Card Fraud</b>	Nov 19
<ul style="list-style-type: none"><li>Performed classification of credit card fraud transactions on an imbalanced datasets. Made use supervised learning methods, such as SVM, Decision Trees and Random Forest, as well as SMOTE to deal with imbalanced datasets.</li></ul>	
<b>UBS Quant Hackathon</b>	Oct 19
<ul style="list-style-type: none"><li>Proposed the implementation of a sector rotation strategy through the use of a reinforcement learning algorithm (Proximal Policy Optimization) and trained reinforcement learning agents on custom stock trading environment built on OpenAI's Gym.</li></ul>	
<b>Singapore-India Hackathon</b>	Sep 19
<ul style="list-style-type: none"><li>Developed a web application that aided in epidemiology analysis in the context of poor data gathering and data analysis of public health data in India, with the solution achieving the Top 10 in the competition.</li><li>Wrangled, cleaned and visualized health data, making use of Python libraries such as SciPy, numpy, Seaborn and Folium.</li></ul>	
<b>Rohde and Schwarz Engineering Competition</b>	May 19
<ul style="list-style-type: none"><li>Developed a solution to regression problem of predicting 5G bandwidth demand with XGBoost which had the best performance among Asian teams.</li><li>Presented data analysis solution to an international audience and achieved highest score in international finals.</li></ul>	
<b>REHackathon</b>	Mar 19
<ul style="list-style-type: none"><li>Prototyped an android application for online ordering of food using React-Native, achieving 1<sup>st</sup> Runners Up in the competition.</li></ul>	

## CO-CURRICULAR AND LEADERSHIP EXPERIENCE

<b>Blockchain At NTU</b> <i>Co-Director of Business Development</i>	Aug 18 – Aug 19
<ul style="list-style-type: none"><li>Led business development team in contacting potential partners or sponsors for event collaborations or research grants.</li><li>Engaged in school outreach and publicity as Student Outreach Lead for ETHSingapore by ETHGlobal, welcoming more than 100 participants from across the world.</li><li>Organised and hosted sharings from industry experts, including those from Ethereum Foundation and Akomba.</li></ul>	
<b>Makers' Lab</b> <i>Design Committee</i>	Aug 18 – Aug 19
<ul style="list-style-type: none"><li>Created publicity materials for Makers' workshops and events.</li><li>Led and facilitated design and Makers' workshops.</li></ul>	
<b>Tencent Qidian</b> <i>Translation Team Founder</i>	Jan 17 – Dec 18
<ul style="list-style-type: none"><li>Responsible for translation, liaison and management of twelve web-novel translation teams (consisting more than 20 individuals).</li><li>Yielded more than 100 million views on the translated and published chapters.</li></ul>	
<b>Hwa Chong Students Council</b> <i>Social And Relations Committee</i>	Jun 14 – Jun 15
<ul style="list-style-type: none"><li>Led committees for school-wide events and organized school social events such as the Inter-Faculty Dance Competition and the annual orientation batch project.</li><li>Spearheaded green initiatives, such as the replacement of Styrofoam takeaway packets with reusable lunch boxes, saving more than 1,000 Styrofoam takeaway packets.</li><li>Ambassador in the Green Council and the school's Green Movement Taskforce.</li></ul>	

## SKILLS

- Languages: Chinese, English
- Programming Languages: Proficient in Python, Competent in C, C++, Java, Javascript and SQL.
- Skills: Research, data analysis, machine learning, deep learning and reinforcement learning concepts and project management.