

ZHANG Liu

CONTACT INFORMATION	Yale-NUS College 28 College Avenue West Singapore 138533		(+65)85156883 zhangliu@u.yale-nus.edu.sg http://zhangliu6.github.io
EDUCATION	Yale-NUS College, Singapore Bachelor of Science (Honors) (expected May 2022) <ul style="list-style-type: none">• Intended Major: Mathematical, Computational, and Statistical Sciences• Intended Minor: Global Antiquity Overall GPA: 4.68/5.0; Math GPA: 4.83/5.0		
ACADEMIC COURSEWORK	<input type="checkbox"/> Quantitative Reasoning <input type="checkbox"/> Calculus <input type="checkbox"/> Linear Algebra <input type="checkbox"/> Proof <input type="checkbox"/> Mathematical Analysis I (Honors) <input type="checkbox"/> Introduction to Computer Science <input type="checkbox"/> Discrete Mathematics	<input type="checkbox"/> Philosophy and Political Thought 1 and 2 <input type="checkbox"/> Beginning and Intermediate Sanskrit <input type="checkbox"/> Literature and Humanities 1 and 2 <input type="checkbox"/> Scientific Inquiry 1 and 2 <input type="checkbox"/> Introduction to Black Holes <input type="checkbox"/> Creativity, Imagination and Theoretical Physics	
RESEARCH SKILLS	Deep Learning Programming languages Softwares/Tools	Completed Andrew Ng’s deeplearning.ai specialization (<i>certificate</i>) C/C++, R, Python, Julia, OCaml Git version control, Latex typesetting Tensorflow, Keras, Statistical Package in Social Sciences (SPSS), Praat (Linguistics), Orange Canvas Machine Learning, Arduino, RoboLab, Mindstorm, MATLAB, EEGLAB, SAOImageDS9	
PUBLICATIONS	Zhang L., Ng E.Y.K. (2019) <i>Study of Machine Learning in Automatic Sentiment Recognition from Human Speech</i> . In: Arai K., Kapoor S., Bhatia R. (eds) Advances in Information and Communication Networks. FICC 2018. Advances in Intelligent Systems and Computing, vol 887. Springer, Cham. (<i>Paper DOI: 10.1007</i>)		
CONFERENCES	<i>Study of Machine Learning in Automatic Sentiment Recognition from Human Speech</i> , 2018 Future of Information and Communications Conference, Singapore (April, 2018). (<i>Conference interview</i>)		
OTHER SKILLS & INTERESTS	Languages	English (bilingual) Mandarin (bilingual) Classical Sanskrit (intermediate reading and writing proficiency) Classical Chinese (advanced reading and writing proficiency)	
	Interests	Mathematics: Combinatorics, Geometry, Numerical Analysis Computer Science: Machine Learning, Algorithm Design, Functional Programming, Competitive Programming Miscellaneous: Linguistics, Classical Civilizations, Religion and Spirituality, Ancient Indian and Chinese Mathematics and Philosophy, Astronomy.	

HONORS AND AWARDS	2018 – present	Yale-NUS Study Award , full scholarship for undergrad education.
	2020	Summer Academic Scholarship Award , selective merit-based scholarship for Yale-NUS students.
	2019	J Y Pillay Global-Asia Programme Award , selective merit-based scholarship for Yale-NUS students.
	2017	International Finalist at Dongrun-Yau Science Award, highly selective competition organized by Tsinghua University.
	2017	Silver Award, represented Singapore at International Beijing Youth Science Creation Competition.
	2017	Best Paper Award , IRC Conference on Science Engineering & Tech.
	2017	Gold Award in Nanyang Research Program, two-year research for talented high school students in Singapore.
	2017, 2016, 2015 2013 – 2017	Bronze Medalist at Singapore National Olympiad in Informatics. Singapore Ministry of Education SM1/JM3 Scholarship, highly selective government scholarship to support four-year study in Singapore, including tuition and stipend.
SCIENTIFIC RESEARCH EXPERIENCE	Aug 2019 – present	<i>Hybrid Analytical-Numerical Integration.</i> Advisor: Assistant Prof. David Smith, Yale-NUS College.
	Jun 2019 – Jul 2019	<i>Digital Gazetteer Project at Yale Library.</i> Advisor: Dr. Catherine DeRose, Yale Digital Humanities Lab.
	Sep 2018 – Jun 2019	<i>Ecological Modeling Research Cluster.</i> Advisor: Assistant Prof. Maurice Cheung, Yale-NUS College.
	Jan 2018 – Jun 2018	<i>Emotion recognition from electroencephalography (EEG) signals using hybrid deep neural networks.</i> Advisor: Assistant Prof. Ren Hongliang, School of Engineering, National University of Singapore.
	Apr 2016 – Dec 2017	<i>Application of Machine Learning in Automatic Sentiment Recognition in Human Speech</i> Advisor: Associate Prof. Ng Yin Kwee, Eddie, College of Engineering, Nanyang Technological University.
	Feb 2017 – Jun 2017	<i>Multi-Perspective Research on Autism Spectrum Disorder and Neuroscience of Love</i> Advisor: Assistant Prof. Jean Liu, Yale-NUS College.
	May 2019 – present	President of Ashen Light Astronomy Club, Yale-NUS College.
	May 2019 – Jan 2020	Treasurer of Tònes Multilingual Literary Magazine, Yale-NUS College.
	2016 – 2017	President of Mathematics and Computing Club, Anglo-Chinese Junior College.
	2016 – 2017	Vice-President (Talent Development) , Science & Mathematics Council, Anglo-Chinese Junior College.
LEADERSHIP	2014 – 2015	Prefect , Student Council Training and Development Committee, Swiss Cottage Secondary School.