ZHANG LIU

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Education

Yale-NUS College, Singapore	2018 – present
Anglo-Chinese Junior College, Singapore	2016 – 2017
Swiss Cottage Secondary School, Singapore	2014 – 2015
No. 13 Middle School, Urumqi, Xinjiang, China	2010 – 2013

Areas of Expertise and Interest

1. ***Deep Learning:*** successfully completed the deeplearning.ai specialization
   (certificate: https://www.coursera.org/account/accomplishments/specialization/3PAXFXZG7WAZ)
2. ***Programming languages:*** proficient in C/C++, Python
3. ***Software / tools:*** Statistical Package in Social Sciences (SPSS), Praat, Orange Canvas, Arduino, RoboLab, Mindstorm, MATLAB, EEGLAB
4. ***Research interests:*** Computer Science, Natural Language Processing, Sentiment Analysis, Machine Learning, Affective Computing, Cognitive Science, Neuroscience
5. ***Personal interests:*** linguistics, logic, long-distance running
6. ***Languages:*** Chinese (native, proficient); English (proficient); Sanskrit (elementary)

Leadership

- **President**, Mathematics and Computing Club, Anglo-Chinese Junior College (2016-2017)
- **Vice-President (Talent Development)**, Science and Mathematics Council (SMC), Anglo-Chinese Junior College (2016-2017)
- **Overall In-Charge (IC)**, Open House CCA Showcase, CCA Exhibition & CCA Recruitment (2017)
- **Event IC**, Vietnam Educational Program – SOS Village (2016)
- **Assistant Event IC**, Heyday (2016)
- **Assistant Event IC** and **Computer Science Question Setter**, International C. B. Paul Quiz (2017)
- **Committee Chairman**, International Biomedical Quiz (2016 & 2017), International C. B. Paul Quiz (2016 & 2017), International Young Whizzes Challenge (2016)
- **Prefect**, Student Council Training and Development Committee, Swiss Cottage Secondary School (2014-2015)
- **Organizer**, Swiss Cottage Secondary School Secondary One Orientation (2014)

Research Projects

1. **"Emotion Recognition from Electroencephalography (EEG) Signals Using Deep Learning to assist recovery of children with speech deficiencies"**   **Jan 2018 – Jun 2018**
   - Supervisor: Assistant Professor Ren Hongliang
   - Lab of Medical Mechatronics, School of Engineering, National University of Singapore (NUS)

2. **"When Siri Knows How You Feel: Application of Machine Learning in Automatic Sentiment Recognition in Human Speech"**   **Apr 2016 – Dec 2017**

- Supervisor: Associate Professor Ng, Yin Kwee, Eddie (College of Engineering, Nanyang Technological University)
- **Published in the international conference**, **IEEE Sponsored Future of Information and Communications Conference**
- Presented in **International competition**, Dongrun-Yau Computer Science Award and won the **Finalist Award**
- Presented in International Researchers' Club Conference on Science Engineering and Technology and won the **Best Paper Award**
- Presented at Nanyang Research Program and won the **Gold Award**
- Presented at Singapore Science and Engineering Fair and won the **Bronze Award** (highest award for Robotics)

3. **"Multi-Perspective Research on Autism Spectrum Disorder"**   Apr 2017 - Jun 2017
   - Presented at the Science and Technology Endowment Program (STEP) - National University of Singapore (NUS) Sunburst Brain Camp

4. **"Neuroscience of Love"**   Feb 2017 – Apr 2017
   - Mentor: Assistant Professor Jean Liu, Yale-NUS College
   - **Published** in the *Brain Book,* Chapter 6

5. **"Effects of Broad-Spectrum Antibiotics on The Clinical Outcomes of Pneumonia"**

   Feb 2017 - Mar 2017
   - **Represented Singapore** at Beijing Youth Science Creation Competition and won the **Silver Award**

Honors and Awards

- **Bronze**, Singapore National Olympiad in Informatics (2017 & 2016 & 2015)
- **Silver**, Singapore Mathematics Olympiad (Senior) (2014)
- **Distinction**, Australian Mathematics Competition (2016)
- **Distinction**, Computational and Algorithmic Thinking (CAT) (2016)
- **High Distinction**, International Competitions and Assessments for Schools (ICAS) in Mathematics (2014)
- **Distinction**, International Competitions and Assessments for Schools (ICAS) in Science (2014)
- Academic Book Prize for **Top in Standards** (2014)
- Academic Book Prize for **Top in Additional Mathematics** (2014)

Activities

- **Participant**, Automatic Speech Recognition and Understanding Workshop (ASRU) (2017)
- **School representative**, Sunburst Brain Camp (2017)
- **School representative**, National University of Singapore (NUS) International Olympiad in Informatics (IOI) Workshop (2014)