

Sicong(Sheldon) Huang

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EDUCATION

UNIVERSITY OF TORONTO

Honours Bachelor of Science

2017.9-2020.7, cGPA 3.92

- Computer Science Specialist
- Cognitive Science Major
- Statistics Minor

VECTOR INSTITUE & BOREALIS AI

Professional Experience Year(PEY)

2018.5-2019.5

- Research Intern

UNIVERSITY OF TORONTO

Bachelor of Applied Science

(B.A.Sc.) 2015.9-2017.5(Finished Year 1 & Year 2, switched to Honours Bachelor of Science)

- Engineering Science, cGPA:3.90

HIGH SCHOOL ATTACHED TO TSINGHUA UNIVERSITY

Experimental Science Class

2012.9-2015.7

SKILLS

PROGRAMMING

Python (Proficient with tensorflow and pytorch)

C(System programming)

Java (Software design)

Matlab (performance optimization)

Assembly • Verilog • Shell • LaTeX

Data analysis and visualization:

Origin8 • Capstone • Excel

Azure Machine Learning Studio

TEACHING

TEACHING ASSISTANT

Department of Mathematics,

University of Toronto

- 2017 Summer: Calculus I
- 2017 Fall: Linear Algebra I
- Teaching tutorials and grading

COMPETITION

MICROSOFT COLLEGE CODE COMPETITION

First Place, September 21st 2017,

University of Toronto

MACHINE LEARNING PUBLICATION

- Unsupervised Cipher Cracking Using Discrete GANs(ICLR2018)
 - Aidan Gomez, Sicong Huang, Ivan Zhang, Bryan M. Li, Muhammad Osama, and Lukasz Kaiser
 - Implemented codebase, fast iteration of experiments in tensorflow
 - Finally obtained exceptional test accuracy as key result of the paper
 - Presented at ICLR 2018 as conference track publication(pdf)

WORK EXPERIENCE

VECTOR INSTITUTE/MACHINE LEARNING GROUP, UNIVERSITY OF TORONTO

Research Intern supervised by Professor Roger Grosse, Sargeev Oore April 2017 - Present.

- TimbreTron: A WaveNet(CycleGAN(CQT(Audio))) Pipeline for Musical Timbre Transfer
 - Processed audio data, implemented model codebase using tensorflow, Fast iterations on ideas and systematic experiment and result analysis Full literature review and wrote the paper, currently under conference review.

BOREALIS AI

Research Intern, part time January 2018 - Present.

- Project 1: Improving domain transfer
- Project 2: Sample based evaluation of Generative Adversarial Networks
- Project 3: Information theory, Variational Inference, MCMC and Generative Models
- Cannot disclose details because research projects under NDA

ULTRAFAST PHOTONICS LAB, UNIVERSITY OF TORONTO

Research Intern supervised by Professor Li Qian April 2016 - September 2016.

- project 1: Modeling of a polarization-dependent spectral dip in Brillouin gain observed in a spun fiber
- project 2: Stable Self Pulsing in Brillouin amplified Spun fiber
- Derived the math and wrote MATLAB code for simulation

LEADERSHIP EXPERIENCE

UNIVERSITY OF TORONTO MACHINE INTELLIGENCE STUDENT TEAM(UTMIST)

Scientific Advisor August 2018 -- Present

President and founder November 2016 -- July 2018

- Founded the organization and lead the executive team to teach Machine Learning via workshop series and Guest speaker series. Hosted 16 events in our first year and grown to over 700 members in two years.

VOLUNTEER RESEARCH EXPERIENCE

Shing-Tung Yau Science Award(Mathematics)

Department of Mathematical Sciences, Tsinghua University November 2014

- Wrote Real Analysis paper "Study on the Relative Periodicity and the Long-term Behavior of Hypocycloid and Quasicycloid", 30000RMB Award

China Agricultural University

Summer Research Student at Laboratory of Food Safety 2012 Summer - 2013 Summer

- Wrote paper "Development and application of a quantitative loop-mediated isothermal amplification method for detecting genetically modified maize MON863". First author publication on a SCI Journal.