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# Curriculum Vitae

## Profile

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| Nov 2018    | • Full Time Employee: <b>DeepMotion</b> , Deep Learning R&D Engineer of self-driving cars. |
| Jul 2018    | • Internship: Microsoft Research Asia ( <b>MSRA</b> ), System Research Group (SRG).        |
| 2014 – 2018 | • Bachelor of Science: Shanghai Jiao Tong University ( <b>SJTU</b> )                       |
|             | • School: Electronic Information and Electrical Engineering ( <b>SEIEE</b> )               |
|             | • Dept.: Electronic Engineering (EE) GPA: 3.83/4.3 Ranking: 4/60                           |

## Honors & Awards

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★ star means notable

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| 2018 | ★ Outstanding Graduate of Shanghai Jiao Tong University                                |
| 2017 | ★ Honorable Mention of Mathematical Contest in Modeling(MCM)                           |
| 2017 | ★ Second Prize of National Undergraduate Electronics Design Contest(Shanghai, China)   |
| 2017 | ★ Tsung-Dao Lee Scholarship  |
| 2017 | ★ Ji Hanbing Alumnus Scholarship   |
| 2017 | ★ Liu Yongling Fellowship(Hong Kong)   |
| 2017 | • Academic Excellence Scholarship (Second Class) of Shanghai Jiao Tong University      |
| 2016 | ★ The Merit Student of Shanghai Jiao Tong University                                   |
| 2016 | ★ National Endeavor Fellowship of Shanghai Jiao Tong University                        |
| 2016 | ★ Third Prize in China Undergraduate Mathematical Contest in Modeling(Shanghai, China) |
| 2016 | • Academic Excellence Scholarship (Third Class) of Shanghai Jiao Tong University       |
| 2016 | • Third Prize in Mettler Toledo Innovation Contest                                     |
| 2016 | • Third Prize in China Undergraduate Physical Experiment Contest (SJTU)                |
| 2016 | • Third Prize in Texas Instruments(TI) Cup Electronic Design Contest (SJTU)            |
| 2016 | • Mandarin Second Upper Level certificate  |

## Publication

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| 2019 | • <b>Bitan Hou</b> (SJTU), Yujing Wang(MSRA), Ming Zeng(CMU), Shan Jiang(UIUC), Ole Mengshoel(CMU): Customized Graph Embedding, IJCAI 2019.(Reviewing) |
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## Professional Research

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| Nov 2018 | ★ FTE in DeepMotion: In order to apply the deep learning algorithm and models to practical products, I have two main tasks. One is model compression, include pruning, distillation, quantization, layer fusion, and NAS. I'm familiar with 8-bit quantization based on QNNPACK package of Caffe2, created by Facebook. The other is deployment, I mainly use TX2 and Xavier of NVIDIA's frame, TDA3x of TI's frame, and HUAWEI's Altas200DK. I'm familiar with CUDA and CUDNN programming, and Caffe source code, which are very important on deployment. |
| Jul 2018 | ★ Internship in MSRA: Auto ML and graph embedding. The class label and the neighborhood context prediction in a graph, with semi-supervised learning. Submitted a paper to IJCAI 2019, under reviewing.  |

## Professional Research

*continued*

- 2017 – 2018 • Final Year Project of Undergraduate: Developed a face recognition system based on deep Learning using Convolutional Neural Network(CNN) for commercial application, which has a good performance in both face comparison and identity verification, and can be utilized on many occasions.
- Jun 2017 • Hui-Chun Chin and Tsung-Dao Lee Chinese Undergraduate Research Endowment(CURE) Program: Photonic Crystals. Optical Signal Dynamic Buffer.Guided by Prof. Chun Jiang.

## Study Experience

- 2017 • Front-end of APP: Develop a commercial APP with a company team.
- 2017 • Super Resolution Convolutional Neural Network(SRCNN) and Reinforcement Learning
- 2016 • Talents Reserved Program: Silicon photonics devices, etc. Guided by Prof. Yikai Su.
- 2015 • Undergraduate Innovation and Practice Program: Research on Key Technology of Low-orbiting Satellite Mobile Communication System. Guided by Lianghui Ding.

## Voluntary & Social Activities

- 2016 • Volunteer for the 2016, 2015, 2014 Shanghai International Marathon
- 2015 • Volunteer tutoring for poor families
- 2015 • Served as Coach in "The Way To Success" Career & Leadership Development Program. Certified by China Soong Ching Ling Foundation, Liaison Department.

## Short-Term Programs and Conferences

- 2018 ★ Computing in the 21th Century Conferences & MSRA Faculty Submmit: Listen to speeches, keynote talks, and panels of many giants in the computer science. Topics varies from aritificial intelligence, machine learning, visual computing to quantum computing. I learned much from them such as Satya Nadella, Raj Reddy, Chi-Chih Yao, Jogn Hopcroft, Yoshua Bengio, Lenore Blum, Butler Lampson, and etc. [www](#)
- 2017 ★ *Building Bridges* Education Support Program: Building Bridges is a Yale University organization. It takes a select group students from HKU, PKU, SJTU and Yale to teach middle schoolers in rural Shanxi Province. As a leader of SJTU team, I was in charge of the connection and arrangement of the members. Certificated by the Aixin Foundation Inc. of the United States. [www](#)
- 2017 ★ *Tsinghua University* Summer Camp: Nano-OptoElectronics Lab, Department of Electronic Engineering, Tsinghua University. [www](#)
- 2016 ★ *Top China* Summer Program: Together with the PKU, we organized the lectures, tours and other activities for students and professors from Brazil on the subject of "Buliding an Inclusive Society and Our Responsibility". As one of the leaders, I was in charge of the connection and arrangement. Certificated by the International Student Center of SJTU. [www](#)

## Skills

- ★ Programming (Python, C++, CUDA, Java, Verilog, VHDL, Neon(a little))
- Web Design (HTML, JavaScript, CSS, Bootstrap), Git, Vim
- Microwave & Antenna, Principle of Communications, Signal Processing(Esp.:DSP), Thin Film Transistor, Silicon Photonics, Photonic Crystals, CMOS
- The Bible and the Western Culture, Evolution of Ancient Greek, The history of Jews

## Interests

- Guitar, Singing, Reading
- Biking, Basketball, Badminton, Tennis, Swimming, Traveling