



## PERSONAL DETAILS

Major	Computer Science
Overall GPA	3.65/4.0 (SYSU 3.8 + CUHK 3.42)
Phone	+852 67428565 / +86 18819253455
Personal Website	<a href="https://stella1006.github.io/">https://stella1006.github.io/</a>
Email	<a href="mailto:stellalee9610@gmail.com">stellalee9610@gmail.com</a>

## EDUCATION

<b>The Chinese University of Hong Kong, China</b>	Sep, 2016 – Pres.
Major: Computer Science	Degree: Bachelor of Science (Expected)
Major GPA: 3.52/4.0 (Top 20%)	Overall GPA: 3.42/4.0
<b>Sun Yat-Sen University, Guangzhou, China</b>	Aug, 2014 – Jul, 2016
Major: Electronic Information Science and Technology	
Major GPA: 3.90/4.0 (Top 5%)	Overall GPA: 3.8/4.0
<b>University of California at Berkeley, U.S.</b>	Jul, – Aug, 2018
Summer School	GPA: 3.5/4.0

## WORK EXPERIENCE

<b>ASM Pacific Technology Limited, Hong Kong</b>	Sep, 2017 – Apr, 2018
<b>Vision Group, R&amp;D Software Developer</b>	
<ul style="list-style-type: none"><li>✧ Developed several features to control the capture of images from a camera and test the quality of the machine for the vision software, which controls the process of bonding die on the board.</li><li>✧ Involved in the algorithm design and implementation for learning and searching images during die bonding in the software.</li><li>✧ Completed a self-directed project involving the height calibration of a die, including camera hardware setup and software implementation. Analyzed the results and improved the accuracy by adjusting parameters.</li></ul>	

## RESEARCH

<b>Efficient Similarity Search with Proximity Graph, CUHK</b>	Jun, 2018 – Pres.
Team Member	Supervisor: Prof. James Cheng
<ul style="list-style-type: none"><li>✧ Analyzed literature on KNN-graphs, NS-graphs, NN-descents, and HNSWs, and improved the NN-descent via segregation and reconstruction.</li><li>✧ Improved searching efficiency by increasing the connectivity of the nearest neighbor graph; applied related algorithms including iterative quantization, product quantization, and inverted multi-index for a maximum inner product search.</li></ul>	
<b>Research Development of a Fake News Detection Algorithm, UC Berkeley</b>	Aug. – Sep, 2018
Team Leader – <a href="#">Github Page</a>	Supervisor: Prof. Mike Tamir
<ul style="list-style-type: none"><li>✧ Built an end-to-end machine learning pipeline that takes in raw text data, processes it into paragraph vectors, and applies trained supervised learning classifiers to the paragraph vectors to label the original text as ‘fake’ or not ‘fake.’<ul style="list-style-type: none"><li>● Compared different methods for current word-embedding applications; used neural embedding implementations such as Gensim for word and paragraph vectorization as well as the Tensorflow hub library to embed text.</li><li>● Used standard industry classifiers to classify fake news including linear regression, logistics regression, random trees, decision trees, XGB boost, and support vector machines.</li><li>● Performed troubleshooting for multi-stage machine learning pipelines</li></ul></li></ul>	
<b>Multi-core Implementation of Stochastic Variance Reduced Algorithms, Hong Kong</b>	Jun – Aug, 2017
Team Member – <a href="#">Github Page</a>   <a href="#">Poster</a>	Supervisor: Prof. James Cheng
<ul style="list-style-type: none"><li>✧ Studied stochastic gradient descent and stochastic variance reduced gradient.</li><li>✧ Implemented a multi-core on algorithms for logistic regression and SVM for an experiment on binary classification.</li></ul>	

## PUBLICATIONS

- ✧ **Norm-layered KNN Graph for Maximum Inner Product Search.** Jie Liu, Xiao Yan, **Zhirong Li**, Bowen Wu, Shiyuan Deng, Xinyan Dai, James Cheng. Very Large Data Bases(VLDB) 2019 [In progress of Preparation]

## RELEVANT SKILLS

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Programming languages: C, C++, Python, Java  
Distributed systems: MapReduce (Hadoop), Spark  
Operation systems: Mac OS X, Windows, Linux

## COMPETITIONS

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### Hack the Tech News World, Google Girl Hackathon Season III, Shanghai, China

Mar, 2017

Team Member – [Project Website](#) | [Slide](#)

- ✦ Worked on a team of five to deal with massive amounts of hacker news data within three days.
- ✦ Classified news based on a latent Dirichlet allocation algorithm; visualized data; predicted rankings for future news using regression models; and implemented the system on an Android app to present the results.
- ✦ Won a prize for having the most technical complexity.

### China Undergraduate Mathematical Contest in Modeling, Guangzhou, China

Sep, 2015

Team Leader

- ✦ Led a team of three in identifying the relationship between the length of a pole's shadow, accurate coordinates of the pole, and accurate date and time, using mathematics and programming skills.
- ✦ Distributed various tasks including literature reviews, mathematical proofs, algorithm design, implementation details, and paper writing. We won the Provincial Second Prize.

## LARGE PROJECT

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### Recipe Wizard, Hong Kong, China

April, 2017

Team Member – [Project Website](#) | [Video Demo \(Highlight!!\)](#)

- ✦ Our Project got the highest score in course CSCI3100 Software Engineering
- ✦ We built an easy-to-use, good-looking website that help people plan their meal and share their experience with others. It also provided recipe recommendations personalized to the individual's tastes, digital recipe box (namely "menu") and menu/recipe search.
- ✦ I was responsible for the front-end development. Works included user interface design and implementation, front to end interaction, retrieving, deleting and updating data.

## SELECTED AWARDS

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|---|-------------|
| - Second Prize Scholarship, Sun Yat-Sen University  | 2015 - 2016 |
| - Third Prize Scholarship, Sun Yat-Sen University   | 2014 - 2015 |
| - Provincial Second Prize, National Mathematical Modeling Contest                             | 2015        |
| - Second Prize, 2015 Twelfth Session of Sun Yat-Sen University Electronic Design Competition  | 2015        |
| - Second Prize, 2014 Eleventh Session of Sun Yat-Sen University Electronic Design Competition | 2014        |

## EXTRACURRICULAR AND VOLUNTEER ACTIVITIES

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### Academic Affairs Department of SYSU, Guangzhou, China

Sep, 2015 – Feb, 2016

Student Assistant

- ✦ Helped students with their academic affairs such as attending cooperative universities on exchange and participating in the laboratory open fund project.

### Information Science and Technology Developing Center, Guangzhou, China

Sep, 2014 – Jul, 2015

Student Assistant, Brand Promotion Department

- ✦ Served as a marketer for competitions and helped coordinate technical competitions.

### Student helper in City library of Dongguan, Guangdong province, Dongguan, China

Jul, 2014 – Aug, 2014

Student Helper

- ✦ Received and maintained books and materials.
- ✦ Provided individual instruction for children and elderly people in the library, including how to search files, use reference sources, and seek related information.
- ✦ Performed routine library services such as receiving and loaning books, returning books to shelves, and following up on overdue books and materials.