

KATHLEEN SUCIPTO

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EDUCATION

Harvard Medical School

Expected Mar 2021

Master of Biomedical Informatics, cumulative GPA: 3.984/4.000

Hong Kong University of Science and Technology (HKUST)

Spring 2016

BEng in Computer Science, CGA: 3.959/4.300

Honors: First Class Honors Degree, Academic Achievement Medal Awardee

WORK & RESEARCH EXPERIENCE

Zitnik Lab, Harvard Medical School

Boston, MA

Capstone Project: denoising biological networks with graph neural networks

Sept 2020 – Dec 2020

- Implemented biased dropout on a weighted graph that can be added on top of any graph neural network model to alleviate the graph reliance on noisy edges
- Applied the algorithm on a fine-grained image similarity network and a protein-protein interaction network

Huttenhower Lab, Harvard T.H. Chan School of Public Health

Boston, MA

Research Intern

May 2020 – Aug 2020

- Developed a Python-based software to identify significant associations between features in two high-dimensional multi-omics datasets measuring the same samples using a hierarchical clustering approach
- Enabled parallel programming using Python's multiprocessing library to speed up the program
- Tested the software on the [FASRC cluster](#), a Linux-based high-performance computing cluster at Harvard
- Wrote the software documentation

Department of Biomedical Sciences, City University of Hong Kong

Hong Kong

Short-term Research Assistant

Oct 2018 – Jun 2019

- Assisted Professor Hsiang-Yu Yuan in modeling Dengue dynamics in Hong Kong using machine learning, mathematical, and statistical techniques in R
- Set up and maintained the team's codebase on Github

Insight Medical Technology Company Limited

Hong Kong

Software Engineer

Nov 2017 – Sept 2018

- Developed cancer detection web applications based on Deep Learning to assist doctors in the diagnosis stage
- Built and maintained a scalable Python Flask and JavaScript-based labeling platform storing more than 4,000 whole slide images on AWS EC2 and S3
- Assisted the product managers in designing the software requirements
- Won the grand prize for the Bayer Pharmaceutical Grants4Apps accelerator in April 2018 with our liver software

Altitude Labs

Hong Kong

Software Engineer

Sept 2016 – Oct 2017

- Developed full-stack websites and iOS/Android applications using React, React Native, and NodeJS
- Coordinated 3 internal programming competitions

Machine Learning Team, Microsoft Research

Redmond, WA

Research Intern

Jun 2015 – Aug 2015

- Assisted in improving the team's Neural Network (NN) C++ framework by implementing k-maxpool
- Built an end-to-end web application using the NN framework to show the classification results to the team

PUBLICATIONS

Yuan, H.Y., Liang, J., Lin, P.S., **Sucipto, K.**, Tsegaye, M.M., Wen, T.H., Pfeiffer, S. and Pfeiffer, D., 2020. The effects of seasonal climate variability on dengue annual incidence in Hong Kong: A modelling study. *Scientific reports*, 10(1), pp.1-10.

Sucipto, K., Chatzopoulos, D., Kosta, S. and Hui, P., 2017, May. Keep your nice friends close, but your rich friends closer—computation offloading using NFC. In *IEEE INFOCOM 2017-IEEE Conference on Computer Communications* (pp. 1-9). IEEE.

Chatzopoulos, D., **Sucipto, K.**, Kosta, S. and Hui, P., 2016, May. Video compression in the neighborhood: An opportunistic approach. In *2016 IEEE International Conference on Communications (ICC)* (pp. 1-6). IEEE.

EXTRACURRICULAR ACTIVITIES

ARK Dragon Boat Team Member, Island ECC, Hong Kong Feb 2018 – Jun 2019

- Involved in 16-week training each year
- Participated in the Sun Life Stanley International Dragon Boat Championships 2018 and 2019

Running Team Member, HKUST, Hong Kong Jan 2016 – Jun 2018

- Participated in the Standard Chartered Half Marathon Races in 2016, 2017, and 2018

SKILLS & QUALIFICATIONS

Programming : Python (NumPy, scikit-learn, PyTorch, pandas), R, LaTeX, JavaScript, HTML
Language : English (Proficient), Mandarin (Intermediate), Bahasa Indonesia (Native)
Other : Red Cross Standard First Aid Certification, expires in 2021