KATHLEEN SUCIPTO

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SELECTED WORK EXPERIENCE

PathAI, Inc. Boston, MA
Machine Learning Engineer (formerly titled Biomedical Engineer) Feb 2021 – Present

- Developing machine learning models to assess pathology images, including:
  - Convolution neural network (CNN)-based pixel classification models to predict tissues and cells, incorporating different resolutions and patch sizes to capture the surrounding contexts required by each class
  - Machine learning classification models, e.g., a random forest classifier to predict slide-level disease severity grades using quantitative features extracted from the CNN-derived heatmaps as inputs
  - Graph neural networks built on top of CNN-derived heatmaps to identify important spatial biological features
- Voluntarily obtained internal code readability reviewer certification to review the readability of merge requests
- Voluntarily joined the codebase steward team responsible for implementing, reviewing, refactoring, and optimizing graph neural network-related code, including the input data preparation and the performance evaluation code
- Led efforts across departments to optimize the quantitative feature extraction pipeline in the production codebase, which reduced the latency approximately by 7x

Huttenhower Lab, Harvard T.H. Chan School of Public Health Boston, MA
Research Intern May 2020 – Aug 2020

- Developed HAllA, a Python-based software that identifies significant associations between features in paired high-dimensional multi-omics datasets using a hierarchical clustering approach
- Ensured tests and documentation were included

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
- Set up, maintained the team's codebase, and wrote tutorials on Github

Imsight Medical Technology Company Limited Hong Kong
Software Engineer Nov 2017 – Sept 2018

- Developed deep learning-based cancer detection web applications from scratch
- 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

EDUCATION

Harvard Medical School March 2021
Master of Biomedical Informatics, cumulative GPA: 3.984/4.000

Hong Kong University of Science and Technology (HKUST) Nov 2016
BEng in Computer Science, CGA: 3.959/4.300
Honors: First Class Honors Degree, Academic Achievement Medal Awardee

SKILLS & QUALIFICATIONS

Programming : Python (NumPy, scikit-learn, PyTorch, pandas), R, JavaScript, HTML, CSS
Language : English (Proficient), Mandarin (Intermediate), Bahasa Indonesia (Native)