

Lawrence Wong

☎ (+1) 646-203-9029 | ✉ lcwong@mit.edu | 🌐 lcwong0928 | 📷 lcwong0928

EDUCATION

Massachusetts Institute of Technology (MIT)

Candidate for M.Eng. in Computer Science & Molecular Biology (5.0/5.0)

S.B. in Computer Science & Molecular Biology (4.9/5.0)

Cambridge, MA

Sep 2021 – May 2022

Sep 2016 – May 2020

- Minor in Statistics & Data Science; Concentration in Japanese
- Relevant Coursework: Machine Learning, Natural Language Processing, Statistics, Algorithms

EXPERIENCE

Massachusetts Institute of Technology (MIT)

Graduate Teaching Assistant

Cambridge, MA

Sep 2021 – Present

- Assist faculty with teaching the graduate course: Statistics, Computation, and Applications.
- Lead weekly recitations, guide students in course projects, and grade problem sets.

eviCore Healthcare - InQbator

Machine Learning Engineer

Boston, MA

July 2020 – Aug 2021

- Designed and implemented an extendable architecture to deploy machine learning models with continuous integration/delivery (CI/CD) to the *Microsoft Azure* platform.
- Developed a scalable infrastructure to route requests from *Kafka* streaming platform to appropriate model endpoints and log telemetry to *Application Insights*.
- Improve healthcare services by identifying problem areas and proposing innovative solutions.

eviCore Healthcare - InQbator

Data Scientist Extern

Boston, MA

Jan 2020 – Feb 2020

- Designed and implemented a time series model to forecast patient case volume based on autoregressive models like *SARIMAX* and Facebook's *Prophet*.
- Finetuned existing models using features from healthcare datasets in *SQL* databases.
- Increased the efficiency of medical code queries by using the interval tree data structure.

PROJECTS

Algorithmic Trading with Machine Learning

github.com/lcwong0928/bullsai

An end-to-end *flask* (request/response) application using ticker prices sourced from *polygon.io* and stored in *InfluxDB* and *SQLite*. Trading strategies backtested through *backtrader* and *vectorbt* modules and real-time paper trading orders placed through *Interactive Broker* and *TD Ameritrade*.

Deep Learning for COVID-19 Diagnosis

github.com/lcwong0928/covid-diagnosis

Experimented with machine learning solutions to diagnose COVID-19 by training on chest radiographs (x-rays) and compared the performance of classification models based on various convolutional neural network architectures like *ResNet*, *VGGNet*, and *DenseNet*.

Machine Learning for Cancer Cell Classification

github.com/lcwong0928/cancer-classification

Demonstrated that the accuracy of cancer cell classification will not suffer significantly with a carefully selected feature subset (less than .3%) of the gene expression dataset using *co-expression networks*, *multiple hypothesis testing*, and *multinomial logistic regression techniques*.

SKILLS

Programming

Python, Java, SQL, InfluxQL, R, MATLAB, HTML/CSS

Technologies

Tableau, Git, LaTeX, Photoshop, Lightroom, Confluence

Interests

Algorithmic Trading, Photography, Poker, Pen Spinning, Cardistry

Languages

Cantonese, Chinese, Japanese