

Timothy Li

Last Updated on 9th September 2019

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WORK EXPERIENCE

REX | DATA SCIENCE AND SOFTWARE ENGINEERING INTERN

May 2019 – Aug 2019 | Los Angeles, CA

- Main Project | Implemented a housing price prediction model using XGBoost. Performed feature selection with elastic net and parameter optimization with grid search. Integrated ensemble model with the Rex internal pricing model to improve the Rex pricing system.
- Deliverable | Using geospatial data, created maps that plotted features of interest around our listings to better understand Rex properties' local neighborhoods.
- Deliverable | Visualized the percent of each housing market REX makes more affordable per zip code. Used Pandas for data preparation and Tableau for data visualization.
- Deliverable | Analyzed the correlation between listing prices and number of showings for select zip codes. Used Seaborn and Bokeh to visualize results.
- Award | Engineering intern of the summer.

RESEARCH

MACIVER LAB, STANFORD UNIVERSITY | NEUROSCIENCE RESEARCHER

June 2017 – Aug 2017 | Stanford, CA

- Used electrophysiological techniques to test novel general anesthetics on rat hippocampi.
- Wrote a script in Java that automated approximately 80% of the data processing step.
- Presented findings to the neuroscience department as well as the general public.

ORCHARD LAB, CSUF | MEDICINAL CHEMISTRY RESEARCHER

October 2016 – May 2017 | Fullerton, CA

- Synthesized pharmaceuticals to target the Human Papillomavirus (HPV) E6 protein.

TAO LAB, CSUF | COMPUTATIONAL CHEMISTRY RESEARCHER

May 2016 – Aug 2016 | Fullerton, CA

- Used Gaussian09 to model atmospheric interactions of sulfur dioxide and water clusters.

RELEVANT ACTIVITIES

PERSONAL PROJECTS

- NewStock | newstock2018.herokuapp.com - Visualized correlation between stock price and news article sentiment with Kensho Knowledge Graph API.
- StockTalk | stocktalk.herokuapp.com - Used Keras linear regression modeling to predict future stock price based on historical stock data.
- TextCompanion | textcompanion.herokuapp.com - Performed sentiment analysis on user-inputted text with Watson API.

OPEN SOURCE

- scikit-learn | Modified hyperparameters to speed up neural network example code.

COURSEWORK

- Harvard College | Economics and Computation, Theoretical Computer Science, Programming Languages, Applied Linear Algebra and Big Data, Probability, Vector Calculus and Linear Algebra, Economics
- Online | DeepLearning Specialization - DeepLearning.ai, Machine Learning - Andrew Ng, Foundations of Data Analysis - UTAustinX, Introduction to Computational Thinking and Data Science - MITx
- SciPy 2019 | Bayesian Statistics, Complexity Science, Deep Learning Fundamentals: Forward Model, Differentiable Loss Function, and Optimization Routine
- California State University of Fullerton | Biochemistry, Quantitative Chemistry, Organic Chemistry

EDUCATION

HARVARD UNIVERSITY

M.S. IN COMPUTER

SCIENCE

Expected May 2022

A.B. IN COMPUTER

SCIENCE

Expected May 2022

Cambridge, MA

School of Engineering and

Applied Sciences

GPA: 3.83 / 4.0

SKILLS

PROGRAMMING

Over 5000 lines:

Python • Java

Over 1000 lines:

OCaml • C++ • Matlab •

HTML/CSS

Familiar:

Haskell • Prolog • R •

JavaScript • SQL • LaTeX

PACKAGES

XGBoost • SciKit-Learn •

Keras • Pandas • Bokeh •

Tensorflow • Plotly • SciPy

• Seaborn • Matplotlib •

Statsmodels

TECHNOLOGIES

Tableau • Git • mySQL •

PostgreSQL • Jira • Docker

• Kubernetes

AWARDS

2018 – Best in Class

HackLA hackathon

2017 – National Top 50

US Chemistry Olympiad

2017, 2018 – 1st place

Science Olympiad Nationals

2015 – 1st place

International art

competition

INTERESTS

Drawing, Running, Scuba
Diving, Guitar, Piano.