

Timothy Li

Last Updated on 26th August 2020

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WORK EXPERIENCE

FACEBOOK | SOFTWARE ENGINEERING INTERN

June 2020 – Aug 2020 | Menlo Park, CA

- Primary Project - Added image recognition functionality to Messenger's Advanced Context Search. Once in production, this feature will allow users to quickly search for images in their chat threads.
- Secondary Project - Improved the current multi-task multi-label broadcast flow model used in content sharing by filtering input data and removing positional effect bias.

REX | DATA SCIENCE INTERN

May 2019 – Aug 2019 | Los Angeles, CA

- Primary Project - Used a boosting algorithm to implement a housing price prediction model. Used elastic net for feature selection and grid search for parameterization. Combined this model with existing architecture to improve Rex's pricing algorithm.
- Award - Engineering intern of the summer.

RELEVANT ACTIVITIES

PERSONAL PROJECTS

- Effects of the Coronavirus Pandemic on Realized Volatility | timsaur.github.io/projects - Used the Kolmogorov–Smirnov test to compare realized volatility of the S&P 500 before and after the pandemic. Also compared current conditions to historical market crashes.
- Finding Nash Equilibrium in Zero Sum Sequential Games | timsaur.github.io/projects - Used a counterfactual regret minimization algorithm to develop an optimal strategy to play Rock, Paper, Scissors and Kuhn's Poker.
- NewStock | newstock2018.herokuapp.com - Visualized correlation between stock price and news article sentiment with Kensho Knowledge Graph API.
- TextCompanion | textcompanion.herokuapp.com - Performed sentiment analysis on user-inputted text with Watson API.

COURSEWORK

- Harvard | Statistical Inference, Probability, Machine Learning, Data Structures and Algorithms, Applied Linear Algebra and Big Data, Economics and Computation, Theoretical Computer Science, Programming Languages, Micro/Macroeconomics.
- Online | Financial Engineering and Risk Management (Columbia University), DeepLearning Specialization (DeepLearning.ai), Real Analysis (Harvey Mudd), 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.

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 the data processing step.

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.

EDUCATION

HARVARD UNIVERSITY

M.S. IN STATISTICS

Expected May 2022

A.B. IN COMPUTER SCIENCE

Expected May 2022

Cambridge, MA

School of Engineering and Applied Sciences

Concentration GPA: 3.8 / 4.0

SKILLS

PROGRAMMING

Over 5000 lines:

Python • C++ • Java

Over 1000 lines:

OCaml • Matlab • HTML/CSS

Familiar:

Haskell • Prolog • R •

JavaScript • SQL • LaTeX

PACKAGES

Statsmodels • Tensorflow •

Keras • Pandas • Bokeh •

SciKit-Learn • Plotly •

SciPy • Seaborn •

Matplotlib • XGBoost

TECHNOLOGIES

Tableau • Git • MySQL •

PostgreSQL • Jira • Hive •

Kubernetes • Presto •

Mercurial • Docker

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, Rock Climbing,

Running, Scuba Diving,

Guitar, Poker, Piano