

# Timothy Li

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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 - Modified 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 realized volatility of the S&P 500 to quantify the effects coronavirus had on market variance. Also used this volatility to compare variance across presidential terms.
- 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 College | 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 | Derivatives 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

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