

# LIOR HIRSCHFELD

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## EDUCATION

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**Massachusetts Institute of Technology** Cambridge, MA September 2017 - May 2021  
*Bachelor of Science in Computer Science, Mathematics and Minor in Literature* Overall GPA: 5.00/5.00

- Relevant Coursework: Machine Learning, Analysis of Algorithms, Theory of Computation, Differential Equations, Linear Algebra
- Awards: 2020 SuperUROP Award, Burchard Scholar, AQR Best Fintech Project at HackMIT, HRT Best Use of Data at HackMIT

**Phillips Academy** Andover, MA September 2013 - June 2017  
*High School Diploma*

- Awards: Cum Laude Society, AP Scholar with Distinction, Caroline D. Bradley Scholarship

## WORK EXPERIENCE

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**Kalshi** New York, NY October 2020 - Present  
*Software Engineer*

**The D. E. Shaw Group** New York, NY June 2020 - August 2020  
*Trading Intern*

- Worked on the Macro team to anticipate global economic trends.

**Google** Cambridge, MA June 2019 - August 2019  
*Software Engineering Intern*

- Developed Flume pipeline to collect price change data and extract relevant features.
- Produced model to identify and avoid unnecessary queries in cases where prices are likely unchanged.

**The Markov Corporation** Palo Alto, CA June 2018 - August 2018  
*Software Engineering Intern*

- Designed and implemented event-based logging infrastructure to enable quick, flexible queries with ElasticSearch.
- Built administrative web-dashboard to support transparent access and visualization of cloud-based logs.

## PAPERS AND PUBLICATIONS

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**MIT Computer Science and AI Laboratory** January 2019 - May 2020

- First author of paper titled "Uncertainty Quantification Using Neural Networks for Molecular Property Prediction."
- Surveyed and evaluated ten different methods which attempt to predict the confidence of molecular property predictors.
- Published in the *Journal of Chemical Information and Modeling*.

**MIT Department of Mathematics** September 2017 - May 2018

- Co-authored graph theory paper with Dr. Asaf Ferber titled "Co-degrees Resilience for Perfect Matchings in Random Hypergraphs."
- Established an upper bound on the number of edges that can be removed in a random hypergraph while retaining a perfect matching.
- Published in *The Electronic Journal of Combinatorics*.

## PROJECTS

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**Cryptonite** <http://crypt-onite.herokuapp.com/>

- Won HackMIT's "Best Fintech" award with web app that predicts Ethereum's price by performing sentiment analysis on tweets.
- Trained SVM to identify tweet sentiment, used linear regression to predict price changes, and presented results on Django site.

**Exploring the Effect of ML on Social Media Bots** <http://mlanalysis.herokuapp.com/>

- Built two Reddit bots which use reinforcement learning and have collectively received over 2,000 "upvotes" from the community.
- Investigated the effects of machine learning on their behavior by constructing a control group and comparing their performance.

## LEADERSHIP

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**Gift of Life: Bone Marrow Registry** December 2017 - December 2018  
*Fundraiser Organizer*

- Organized mailing campaigns which have raised approximately USD\$2500 for the registry so far.
- Managed on-campus publicity stunt, collecting over USD\$1000 and signing up 100 student and faculty members to the registry.

## SKILLS AND INTERESTS

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**Languages** English (Native), Hebrew (Native)

**Interests** Fantasy, Antique Books, Skiing, Yoga, Board Games, Mechanical Watches