

# Ethan Kim

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## EDUCATION

### Harvard University

A.B Candidate in Statistics (Data Science Track), Secondary in Computer Science GPA: 3.75 /4.00.

Cambridge, MA

*Expected May '21*

Coursework: Advanced Topics in Data Science, Algorithms and Data Structures, Introduction to Data Science, Time Series, Linear Models, Probability, Inference, Introduction to Computer Science, Multivariable Calculus, Linear Algebra, Statistical Machine Learning, Advanced Data Science Practicum, Scientific Software Development

### Boston Latin School

GPA: 4.52, SAT 2370/2400 (V800, M800, W770)

Boston, MA

*May '17*

Activities/Awards: Varsity Soccer League All Star, National Merit Scholar Finalist, National Honor Society

### Academia Latino America

Advanced Spanish Language and Grammar, GPA: 4.0

Quito, Ecuador

*Jun '19 – Aug '19*

## RELEVANT EXPERIENCE

### BrainSpecMed

Boston MA

*May 20 - Present*

- Developed visualizations to enhance usefulness of Magnetic Resonance Spectroscopy data
- Created data processing pipeline for analysis of spectroscopic data

### Harvard College Data Analytics Group

Cambridge, MA

#### Case Team Leader

*Jan '20 - Present*

- Led team of six on Data Science research project for a sports analytics company
- Developed low latency predictive models for sports matches
- Facilitated launch of new club focusing on helping companies and non-profits derive value from Data
- Interviewed potential members and developed technical standards for the team

#### Coronavirus Response Team

- Created visualizations for a high impact COVID paper (JAMA Internal Medicine)
- Performed initial data processing and consulted on effective visualization techniques

### Harvard Open Data Project

Cambridge, MA

*Feb '19 - Present*

- Completed curriculum on data scraping, statistical analysis and data presentation.
- Implemented tools to visualize trends in menu data scraped from the Harvard Dining Service website

## PROJECTS

### Impact of Weather on Social Distancing

- Scraped county level weather data to evaluate relationship with social distancing indices
- Explored effect of weather on viral reproductive rates

### Predicting Types of Crime in Boston

- Using spatiotemporal data to predict category of crimes from location
- Achieved significant increase in accuracy using census and location data and Random Forest models

### Detection of Cell Cycle Genes and Regulators in *S. Cerevisiae*

- Time series analysis on mRNA expression data in yeast to detect cyclic genes
- Correctly identified key cell cycle proteins and regulators

### Training an AI to play Incan Gold

- Implemented playable version of the board game, Incan Gold, using Python, Flask and JavaScript
- AI trained on winning moves from thousands of games achieved 150% increase in win percentage

### Predicting Airbnb Prices in Boston

- Using relevant demographic and location predictors to better predict price of Airbnb accommodation
- Identified key differences in preferences between long term property buyers and short-term renters

## LEADERSHIP AND ACTIVITIES

### Harvard Academic Resource Center

Cambridge, MA

#### Peer Tutor

*Sept '18 - Present*

- Tutored Students in Math 21A Multivariable Calculus and Stat 111, Introduction to Statistical Inference
- Completed peer tutoring professional development workshop program on best practices in education

## SKILLS

**Technical Skills:** Python, Sklearn, Tensorflow, Matplotlib, SQL, R, AngularJS, D3.js

**Languages:** Conversational in Spanish, Classes at the Academia Latino America in Quito, Ecuador

**Favorite Books:** *Unbroken*, *The Power of Habit*, *Moneyball*, *Soccernomics*

**Interests:** Sports Analytics, Reading, Football, Basketball, Harvard Club Soccer