# Ethan Heimlich

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## Education

University of TorontoToronto, OntarioB.Sc Statistics: 3.25 GPAGraduating April 2020

# **Employment History**

Data Science InternNew York, New YorkAetnaJune 2019 - August 2019

- Developed a consumer-facing analytics campaign from scratch with potential savings impact of \$2 million.
  - Analyzed petabytes of diverse health data using Python, R, and SQL.
  - Presented business case to a diverse audience of technical and nontechnical leaders including the Chief Analytics Officer of Aetna.
  - Performed cost savings analysis using causal inference methods such as propensity scoring.
  - Prototyped initial predictive model in scikit-learn.
- Took the initiative to write a white paper on factorial experimental design to educate data scientists and analytics marketers on advanced experimental design. The whitepaper was utilized by the marketing team to develop complex customer-facing messaging campaigns.
- Identified a significant knowledge-sharing problem within the Analytics & Behavior Change department (300+ people). Took the initiative to implement Airbnb's open-sourced knowledge repository on internal servers. Presented solution to senior management and articulated business value of adopting the solution.
- Assisted data engineering in implementing Bayesian sampling solution to solving email campaign multi-armed bandit problem.

**Data Science Intern**Cambridge, Massachusetts

IQVIA

June 2018 - August 2018

- Implemented a machine learning model to predict whether a prescription drug claim was run under a health care plan's medical or pharmacy benefit.
- Aggregated & cleaned sparse and messy data from 12 different sources using R and SQL.
- Presented findings to both a technical and non-technical audience of senior management.
- Designed complex SQL queries and excel pivot tables to extract and analyze longitudinal data for client deliverables.

Data Production InternCambridge, MassachusettsIQVIAJune 2017 - August 2017

- Developed a T-SQL script automating a portion of the production team's QA checks, reducing workload by 8 hours per QA cycle.
- Wrote and promoted into production a collection of T-SQL stored procedures to create project databases and set up views to market databases.

## **Datathons**

### Finalist - Microsoft Toronto Data Science Challenge:

• Placed in the final six projects and presented results to a panel of professors and industry professionals. Built machine learning model utilizing Microsoft Azure and GEOTAB data to predict car accidents on a county level in the United States.

#### Best Use of SAS Award - Rotman MMA Datathon:

• Utilized Toronto Police and GEOTAB data to determine areas in Toronto with high drunk driving risk. Proposed a data-driven solution to the Toronto Police to help mitigate drunk driving accidents.

## Technical Skills

• Python, R, SQL, Git, and Bash.