

# EMILE GIVENTAL

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## EDUCATION

### M.S.E. in Computer Science

#### University of Pennsylvania School of Engineering and Applied Science

 2020 – 2021     Philadelphia, PA

- 3.7 GPA in departmental CS courses.
- Coursework in AI/ML, WebDev, Web Systems (AWS), and Problem Solving workshops.
- Sub-matriculated into program as Sophomore. Took courses in Randomized Algorithms/Cryptography and Computer Graphics while still attending Haverford.

### B.S. Double Major in Mathematics and Computer Science

#### Haverford and Bryn Mawr Colleges

 2017 – 2020     Ardmore, PA


- 3.9 In Majors GPA
- Thesis on Interpretable Meta Learning
- Graduated in 3 years. Completed Computer Science Major at Haverford, while completing the Mathematics Major at Bryn Mawr.
- Varsity Athlete on Cricket Team

## RESEARCH AND WORK EXPERIENCE

### Undergraduate Researcher

#### Haverford College Friedler Lab

 June 2018 – January 2020     Ardmore, PA

- Machine Learning Research on Interpretability and Fairness in Transfer/Meta Learning Environments
- Created a Pip Package wrapping 3 interpretable ML Models: Supersparse Linear Integer Model, Bayesian OR/AND Rule Lists, and Certifiably Optimal Rule Lists. 

### Teaching Assistant and Tutor

#### Haverford College

 August 2018 – January 2020     Ardmore, PA

- Tutor sessions for debugging, using Github, and coding style
- Assisted with homework and provided supplementary instruction
- Creation of auto-grading software and manual grading
- Courses in Python and Java

## PUBLICATION

### *Fair Meta-Learning: Learning How to Learn Fairly*

Dylan Slack, Sorelle Friedler, Emile Giventat

 2019

- Accepted to NeurIPS 2019 for Workshop
- Accepted to ACM FAT\* 2020 for Oral Presentation
- Studies Meta Learning (a preemptive form of transfer learning developed by Chelsea Finn) and its affects on the interpretability and fairness of algorithms in related domains.
- Research showed that regularizer terms for fairness and interpretability in Meta Learning models could work as well as in normal gradient descent models.

## SUMMARY

I completed my undergraduate education in 3 years, and during those summers I chose to do research rather than internships. The summer after completing Haverford, I couldn't get any internships due to Covid. I am now seeking a full-time or internship position as a Software Engineer. I am interested in full stack software development, machine learning projects, and both back-end and front-end web development.

## LANGUAGES/TOOLS

Python/C/C++/Java/JS    HTML/CSS

Tensorflow/Pytorch/Keras

Numpy/Pandas    React/Next.js

SQL/MongoDb    Express/Django/Spark

Eclipse/Maven    Linux/SSH/SCP

AWS (S3, RDS, EMR, EC2)    Node/Yarn

Latex    Selenium/jest/JUnit Testing

## PROJECT EXPERIENCE

- Python
  - Package for using 3 Interpretable machine learning libraries. 
  - Multiple Class Projects with Pandas, Numpy, and various Machine Learning Libraries. \*
  - Pytorch based Machine Learning Research. \*
- JS/React
  - A Twitch/Twitter Clone. Tweets, Follows, and Livestreams. Back-end API, Front-End, and Database management. 
- Java
  - Web Server Framework. Conceivably, one could use this code to build their own static web server like they could use Django or Spark. 
  - A Google Clone built in a Graduate Web Systems Course. 
- C/C++
  - An OS with file management and commonly used linux terminal commands functionality. Taken at UPenn as Sophomore. 
  - Computer Graphics assignments from a graduate course, including a Minecraft Clone. Built with OpenGL. \*
  - A multithreaded Real Time Traffic System. \*

\* Code unavailable for public repositories.

## INTERESTS/HOBBIES

Stocks/Finance/Crypto    Politics    eSports

Poker    Coffee    Baseball    Soccer

Board Games    Star Wars    Westworld