

# DANIEL STEWART

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## EDUCATION

### Massachusetts Institute of Technology

Cambridge, MA | Graduation: May 2023

- Candidate for Bachelor of Science in Mathematics, and Computer Science Engineering, GPA: 4.9/5.0
- Relevant Courses: Quantitative Methods in Natural Language Processing, Discrete Probability and Stochastic Processes, Stochastic Processes, Theory of Computation, Probabilistic Method in Combinatorics

### Iowa City West High School

Iowa City, IA | Graduation Date: June 2019

- Relevant Courses: Data Structures, Multivariable Calculus

## EXPERIENCE

### Software Developer Engineer Intern

Cambridge, MA; Seattle, WA | June 2022, 2023 – September 2022, 2023

- Developed a machine learning model to predict defective customer interactions
- Coded in Python and used UNIX commands to train the model and analyze experiment results
- Coded in Java to work towards deployment of the model for customer use

### Algorithms Teaching Assistant

Cambridge, MA | February 2023 – May 2023

- Led recitation section solving example problems and answering student questions for the Design and Analysis of Algorithms (6.1220) class at MIT
- Graded exams and put together class notes based on lecture content
- Test solved and contributed to making quizzes for the class

### Machine Learning Research Assistant

Cambridge, MA | February 2023 – May 2023

- Worked on creating additional applications for datamodels
- Ran experiments to verify the validity of the approach
- Read papers on state of the art machine learning privacy methods

### Political Science Research Assistant

Cambridge, MA | June 2021 – September 2021

- Formatted large data sets from 2020 elections, and others, using the pandas module in Python
- Used Python packages such as BISG and segregation to calculate relevant statistics
- Proposed and explored a research question relating to implementation of elections

### Linear Algebra Grader

Cambridge, MA | Sept 2020 – December 2020

- Graded proofs from roughly 30 undergraduate students for the upper level linear algebra (18.700) class at MIT

### UROP Algebraic Number Theory Research

Cambridge, MA | June 2020 – August 2020

- Learned a large volume of number theory, including the proof of Finiteness of the Class Group, Discrete Valuation Rings, and others
- Worked on strengthening a bound on the asymptotic number of isogeny classes of elliptic curves over a finite field  $p$

## LEADERSHIP AND ACTIVITIES

### Math Club Team Captain

Iowa City, IA | Aug 2016 – Jun 2019

- Gave instructional lectures to math club and collected problems making weekly problem sheets
- Organized lessons for the second year of the Iowa City Math Circle, on various competition math topics

### USA/Canada Mathcamp

Mines, CO | Jun 2018 – July 2018

- Chosen to attend intense, selective math camp which taught classes on a broad range of difficulties, including typically graduate topics, such as Lebesgue Integration, Class Numbers, and Galois Theory

### Emerson & Music

Iowa City, IA | May 2019 – Current

- Earned Emerson Scholarship at MIT for \$1,000 to play piano and take lessons
- Participated in Iowa competitions, earning first prize in some, performed for school fundraisers which raised over \$2,000 dollars for the local Music Auxiliary

## AWARDS AND HONORS

- USA Math Talent Search 2 Time Bronze Winner (2016-2017), Top 10 State Math Competition Placement (2019), State IMTA Piano Competition Winner (2018), AMC Honor Roll (2019)

## SKILLS, INTERESTS, INVOLVEMENT

- Programming: Python, Java, TypeScript