

Henry Carter

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EDUCATION

Wesleyan University, Middletown, CT

May 2023

Bachelor of Arts, GPA: 3.88/4.00

Major: Computer Science

Coursework: Computer Science I/II, Algorithms & Complexity, Computer Networks, Machine Learning, Probability, Linear Algebra, Design of Programming Languages, Abstract Algebra, Applied Data Analysis.

Carnegie Mellon University, Pittsburgh, PA

Sep. 2020 – May 2021

Part-time Visiting Student, 2020-21 Academic Year

Coursework: Great Ideas in Theoretical Computer Science, Intro to Cryptography, Differential Equations

EXPERIENCE

Software Engineer I, **Mastercard**, New York, NY

Aug. 2023 – Present

- Backend engineer on Technology Strategy and Transformation team.

Software Engineering Intern, **Mastercard**, New York, NY

Jun. 2022 – Aug. 2022

- Secure Remote Commerce (Click to Pay) team.
- Intern project: replaced manual implementations of mappings between Java objects with automatically generated mappings using MapStruct.

Research Assistant, **Wesleyan University NetLab**, Middletown, CT

Mar. 2021 – Sep. 2021

- Developed software in Python to study the geometry of urban road networks using data from the Google Maps API under the supervision of Prof. Saray Shai.
- Proposed and wrote new algorithm to calculate angles in driving routes which yielded clearer and more illustrative distributions and replaced prior method.
- Research in the Sciences Fellow Summer 2021.

Intern, **Amilar Capital**, New York, NY

May 2018 – Jun. 2018

- Wrote programs in Python and JavaScript to develop understanding of options trading.
- Investigated discrepancies between trade fills and observed market conditions.
- Revamped Excel spreadsheets and formulas to accommodate new Bloomberg earnings format.

PROJECTS

Finnegans Wake Bot

Jun. 2023

- Wrote bot using Twitter API and Python to post tweets generated by a GPT-2 language model trained on the full text of James Joyce's *Finnegans Wake*.

NetLab Open Source

Mar. 2021 – Aug. 2021

- Developed computational tools using Python and NetworkX to be released as open source as goal of research project.

LEADERSHIP & ACTIVITIES

Mathematics Peer Tutor, **Wesleyan University**, Middletown, CT

Oct. 2019 – May 2020, Sep. 2021 – Present

- Reviewed concepts from MATH 223: Linear Algebra with students and assisted in completing problem sets.
- Recommended by Prof. to provide 1-on-1/small group tutoring to students in the course.

Tutor, **Traverse Square After School Program**, Middletown, CT

Sep. 2021 – Present

- Provided academic enrichment and recreational activities to Middletown children.

SKILLS

Programming: Java, Python, Functional Programming (OCaml, Standard ML), CI/CD, Splunk Search Processing Language, Machine Learning/Data Analysis, Git.