

AARON FOOTE

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EDUCATION

Wesleyan University, Middletown, CT

September 2024 - May 2025

M.A. in Computer Science

GPA: 4.22/4.00

Thesis: *Diagnosing Biased Feature Importance Scores in Tree-Based Models*

Wesleyan University, Middletown, CT

September 2020 - May 2024

B.A. with High Honors in Computer Science, Minor in Data Analysis

GPA: 3.87/4.00

Thesis: *On the Complexity and Threshold Behavior of Playing Nonogram Puzzles*

WORK EXPERIENCE

Data Science Consultant

June 2025 - Present

CMC Foundation for Change

Palo Alto, CA

- Overhauling survey database with 100+ surveys to streamline analysis with Python
- Developing data visualizations, reports, and dashboards for internal decisions and external fundraising/presentation
- Automating Salesforce business processes to improve company efficiency

Data Engineer Intern

June 2025 - August 2025

Climecast

Palo Alto, CA

- Constructing SQLite database and RESTful APIs serving 100K+ properties nationwide for climate compliance tracking
- Leveraged AI to extract and synthesize previously inaccessible data from PDFs
- Building user-friendly emissions and energy dashboards for REIT client with \$10 billion in assets

RESEARCH EXPERIENCE

Graduate Research Assistant – Interpretable ML

June 2024 - August 2025

Wesleyan University

Middletown, CT

- Developed a hypothesis test under minimal assumptions to evaluate feature importance methods for bias
- Validated the method through extensive simulation and application to real datasets in Python and R
- Integrated dimension reduction techniques to extend the test to higher dimension

Research Assistant – Algorithms, Computational Complexity

September 2022 - May 2025

Wesleyan University

Middletown, CT

- Established complexity results and phase transition behavior for the solving of combinatorial puzzles
- Developed high-performance solvers in C/bash on parallel computing cluster
- Built web scraping pipeline and analyzed 25K+ puzzles published online with Python to identify difficulty heuristics

Summer Research Fellow – Computer Vision, Natural Language Processing

June 2021 - September 2021

Wesleyan University

Middletown, CT

- Developed a pipeline to extract text from political ads using corner detection and OCR, reducing costs by 100x
- Automated the workflow and post-processing with adaptive string clustering for over 200K ads

TEACHING EXPERIENCE

Head Quantitative Analysis Tutor

April 2023 - May 2025

Wesleyan University

Middletown, CT

- Hold 10+ hours of weekly office hours open to the entire university, assisting with coursework, projects and research
- Provide one-on-one statistical consulting for undergraduate and graduate thesis projects, ensuring methodological rigor
- Guide students in managing and analyzing data, employing and interpreting statistical techniques, and visualizing their work with R, STATA, Python, SPSS, SAS, and Excel
- Topics tutored: data visualization, survival analysis, machine learning, hypothesis testing, regression, regression diagnostics, longitudinal data analysis, econometrics, data engineering
- Develop a schedule each semester, lead weekly meetings, and consult with professors

Teaching Assistant – Statistics and Computer Science
Wesleyan University

September 2022 - December 2024
Middletown, CT

- Led weekly lab sections for 15+ students, explaining complex concepts through hands-on activities
- Graded 50+ assignments weekly on Moodle, providing detailed feedback to improve student understanding
- Courses: Algorithms, Theory of Computation, Survival Analysis, Applied Data Analysis

RESEARCH PRESENTATIONS

- Foote, A.** and Krizanc, D. (2025) “Nonogram: Complexity of Inference and Phase Transition Behavior.” *Advances in Computer Games* (Under Review) doi:10.48550/arXiv.2507.07283
- Foote, A.** and Krizanc, D. (2025) “TRIP: A Nonparametric Test to Diagnose Biased Feature Importance Scores.” *IJCAI Workshop on Explainable Artificial Intelligence* (Oral Presentation) doi:10.48550/arXiv.2507.07276
- Foote, A.** and Matthews, G. (2024). “Continuous Within-Play Estimation of Run-Stopping Contribution in American Football.” *Cascadia Symposium on Statistics in Sports* (Poster).
- Foote, A.**, Gooyabadi, M. and Addleman, N. (2023). “Factors in Learning Dynamics Influencing Relative Strengths of Strategies in Poker Simulation.” *Games*. doi:10.3390/g14060073.

AWARDS

- Maureen Snow Prize** (July 2023): Runner-up among 200 students, given for most effective communication of research to a broad audience
- Baker '64 Collabria Fellowship in Data Analysis** (April 2023) – **\$5,000**
- Best Data Story Award** (April 2023): Awarded at Northeast Division ASA DataFest Competition
- QAC Apprentice Grant** (April 2021) – **\$5,400**