

DEJA DUNLAP

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EDUCATION

Yale University, New Haven, CT

Expected Graduation: **May 2026**

B.S. Applied Mathematics, Data Mining & Artificial Intelligence Concentration, **GPA: 3.81**

Awards & Honors: Rhodes Scholar Finalist, Stanford Exposure to Research and Graduate Education, Northwestern Introduction to Graduate Education, Edward A. Bouchet Fellowship, Code2040 Fellowship, Yale Questbridge National College Match Scholarship

RESEARCH EXPERIENCE

Yale Mellon Mays/Edward A. Bouchet Fellowship, *Research Fellow*, New Haven, CT

March 2024 – Present

- Conducting independent research on the linguistic abilities and biases of Large Language Models (LLMs) when representing African American Vernacular English (AAVE).
- Designing a computational framework to analyze syntactic and lexical features of AAVE in model outputs

Equity Research and Innovation Center, *Data Science Intern*, New Haven, CT

Oct 2023 – May 2024

- Conducted statistical analysis of patient comfort and data-sharing behavior across racial and sociodemographic factors using survey data from NIH
- Authored internal reports to inform culturally sensitive care initiatives and digital health accessibility efforts.

INDUSTRY EXPERIENCE

J.P. Morgan/Chase, *Software Engineering Intern*, New York City, NY

June 2025 – Aug 2025

- Designed a domain-specific chatbot to translate natural language questions into structured programming language queries, decreasing training and searching time for financial traders.
- Conducted prompt engineering, fine-tuning, and evaluation of model responses to improve model accuracy and robustness.

Rheaply, *Data Engineering Intern*, Remote

June 2025 – Aug 2025

- Designed and implemented data pipelines to support AI-driven prediction of product weight, embodied carbon, and cost for batch prediction workflows.
- Optimized data storage and retrieval for scalable analytics supporting sustainability and cost-reduction initiatives.

Bloomberg, *Software Engineering Intern*, New York City, NY

June 2023 – Aug 2023

- Architected a scalable framework and applied data processing techniques to analyze real-time metrics for over 2 million ticket distributions annually to inform business managers' decision processes.
- Communicated and documented the project development process and potential use cases for business and engineering future use.

PUBLICATIONS

- **Dunlap, D., & McCoy, R. T. (2025).** *Evaluating Large Language Models' Usage of African American Vernacular English*. Accepted for presentation at the 2026 HCII Conference on Cross-Cultural Design.
- **Dunlap, D. (2024).** It's Time Yale Addresses the Race Issue in the Engineering Department. *Yale Daily News*
- **Dunlap, D., & Park, S. (2022).** An Association of Twitter Derived Measures of Discrimination and Race-Motivated Hate Crimes. *Journal of Student Research*, 11(3).

CONFERENCES

- "Evaluating Large Language Model Usage of African American Vernacular English", Envisioning AI at Yale Symposium, Yale University, New Haven, CT, May 2025
- "Evaluating Large Language Model Usage of African American Vernacular English", Yale Undergraduate Student Research Conference, Yale University, New Haven, CT, April 2025
- "Towards Computational Understanding of Lexical and Grammatical Features of Regional Dialects", Mellon May Northeast Regional Conference, Williams College, Williamstown, MA, Oct 2024
- "Using Social Media as a Research Tool for Social Justice", Black In Data Week, Remote, April 2023

LEADERSHIP EXPERIENCE

Code Switch: Restorative Justice for Girls of Color

Board Member

June 2022 – Present

- Contributing to long-term strategic planning efforts aimed at increasing educational access, promoting racial equity, and developing restorative justice programs for girls of color.
- Collaborated with fellow board members to direct mission-aligned programming and assess annual goals.

Program Manager, Overachievers Education Fund

Feb 2020 – Present

- Led end-to-end management of the Overachievers Education Fund, a microgrant program supporting low-income girls of color with academic expenses.
- Co-led grant-writing efforts, securing over \$10,000 from corporate sponsors like Nevada State Bank and NewSchools Venture Fund.

National Society of Black Engineers

Regional Leadership Conference Chair

May 2024 – July 2025

- Designed and developed leadership training curriculum for over 1,000 student leaders across NSBE chapters nationwide, focusing on strategic planning, organizational development, and equity-centered leadership.
- Organized and executed the Regional Leadership Conference, overseeing logistics, program planning, and speaker arrangements for over 70 attendees from more than 20 chapters, the largest in post-COVID history.

Chapter President

Aug 2023 – May 2025

- Increased chapter membership by 200% through 50+ diverse initiatives, facilitating community in the Black engineering community.
- Advocated for increased diversity in engineering fields through coordinated campaigns and administrative discussions.
- Secured over \$13,000 in funding through corporate sponsorships, grants, and crowdfunding sources.

MENTORSHIP EXPERIENCE

Poorvu Center for Teaching and Learning, Student AI Liaison, New Haven, CT

Aug 2025 – Present

- Co-developing the syllabus and curriculum for the “Race and Gender in AI” course
- Leading a graduate lecturer on racial bias and representation in large language models.
- Developing strategic initiatives to encourage critical examination of AI usage in academia and beyond.

Yale Office of Educational Opportunity, Peer Mentor, New Haven, CT

March 2024 – Present

- Mentored 8 first-generation, low-income college students on transitioning to college and financial literacy through workshops and one-on-one sessions.
- Led a variety of workshops that helped students manage their coursework, stress, and summer opportunities.

Science, Technology, and Research Scholars, Peer Mentor, New Haven, CT

Aug 2024 - Present

- Mentored 8 undergraduate students from underrepresented backgrounds in STEM, offering academic guidance and professional development support.
- Organized and led workshops on networking, research opportunities, and navigating the academic environment for minority STEM students.

Office of Career Strategy, Mock Technical Interviewer, New Haven, CT

Aug 2024 – Present

- Conducted mock technical interviews for undergraduate students preparing for software engineering roles at top tech firms, simulating real-world interview environments.
- Provided tailored, constructive feedback on problem-solving approaches, code quality, and communication skills to improve candidate performance.

Yale Prison Education Initiative, Volunteer, New Haven, CT

Oct 2022 – May 2025

- Supported incarcerated students in Yale-accredited courses by sourcing, organizing, and summarizing academic materials aligned with their syllabi and research assignments.