DEJA DUNLAP

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EDUCATION

Yale University, New Haven, CT   Expected Graduation: **May 2026**
B.S. Applied Mathematics, Computer Science Concentration
Relevant Coursework: Data Structures, Algorithms, Linear Algebra, Discrete Math, Machine Learning, Probability, Computational Linguistics, Data Analysis, Artificial Intelligence

PUBLICATIONS

- Dunlap, D., & McCoy R. T. (2025). A Comparative Evaluation of Large Language Models' Usage of African American Vernacular English. Manuscript under review at *8th AAAI/ACM Conference on AI, Ethics, and Society*.
- Dunlap, D., & Park, S. (2022). An Association of Twitter Derived Measures of Discrimination and Race-Motivated Hate Crimes. *Journal of Student Research*, *11*(3). https://doi.org/10.47611/jsrhs.v11i3.2819

WORK EXPERIENCE

Yale Office of Educational Opportunity, *Academic Peer Mentor,* New Haven, CT   March 2024 – Present
- Mentoring 8 First Generation/Low-Income college students on the transition to college and financial literacy
- Led diverse array of workshops helping students navigate their coursework, stress, and summer opportunities

Equity Research and Innovation Center – Yale School of Public Health, *Student Intern,* New Haven, CT   Oct 2023 – May 2024
- Utilizing advanced data science techniques to conduct exploratory data analysis on patient comfortability sharing data and data seeking patterns and trends
- Collaborated in an interdisciplinary team to translate findings into an interpretable format for further insights

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 about over 2 million tickets distributions annually to inform business managers' decision processes
- Clearly communicated and documented project development process and potential use cases for business and engineering future use

LEADERSHIP EXPERIENCE

Code Switch: Restorative Justice for Girls of Color, *Board Member*   May 2022 - Present
- Assisted in grant-writing, raising $10,000+ from corporate sponsors such as Nevada State Bank, NewSchools, etc. to fund educational grants for low-income students of color
- Issued weekly updates to applicants and board members about the status of applications and funding
- Reviewed dozens of applications monthly, scoring applicants based on rubric designed to ensure fairness in selections

National Society of Black Engineers

Yale Chapter President   Aug 2023 – Present
- Led diverse initiatives like faculty panels, professional development workshops, etc., facilitating community in the Black engineering community and advocating for more diversity in engineering disciplines
- Building strong industry and academic partnerships to help accelerate members professional and academic development
- Secured 13k+ through corporate sponsorships, grants, and crowdfunding sources

Regional Leadership Conference Chair   May 2024 – Present
- Organized and executed the Regional Leadership Conference, managing logistics, programming, and speakers engagements for 70+ attendees across 20+ chapters, the largest in post-COVID history
- Coordinated and organized programming for the Shadow Initiative, connecting members with industry professional and NSBE leaders

FELLOWSHIPS

Yale Mellon Mays/Edward A Bouchet Fellowship, New Haven, CT   March 2024 - Present
- Awarded for outstanding potential in research
- Utilizing novel machine learning techniques to explore Large Language Models understanding of Africa American Vernacular English - addressing biases in AI Communications

CODE2040 Fellowship, Remote   Oct 2024 – Present
- Awarded for critical work in increasing diversity in technology
- Receiving critical mentorships on the intersections of racial equity and technology from industry experts

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 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

PROJECTS

Course Management Webpage, *Code for Good Hackathon*, First Place   Sept 2024
- Developed a centralized platform to ease communication between teachers, students, and tutors for an education-based non-profit
- Implement data tracking and visualization features to collect student success metrics for use by educators and potential funding for the non-profit

Computationally Simulating Race Memory, *Academic Project*   Dec 2023
- Utilized Facial Reconstruction models to computationally simulate racial memory in homogenous White populations as compared to people with a more diverse community exposure
- Authored a report showing the psychological effects of racial homogeneity as well as the dangers of bias in training machine learning models

Real Time Metrics, *Intern Project*, Bloomberg   June 2023 – Aug 2023
- Developed an event-driven pipeline to calculate customer service ticket distribution metrics in real-time
- Transformed raw data into actionable insight, enhancing Bloomberg customer service optimization efforts

TECHNICAL SKILLS

- *Programming Languages:* Python, R, Java, C/C++, HTML, CSS, Kotlin, JavaScript/React
- *Tools:* Git, Apache Flink, Apache Kafka, PostgresSQL, Docker, TinkerCAD