

# Imani Finkley

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## SUMMARY

Humanities scholar with extensive machine learning research experience interested in examining how generative AI impacts linguistic media and communication

## EDUCATION

**Cornell University** | College of Arts & Sciences | Ithaca, NY

2020-2024

B.A. Literatures in English, Summa Cum Laude

**Honors Thesis:** “By AI: Authorship, Literature, and Large Language Models”

**Relevant Courses:** AI Practicum; Information Retrieval; Text Mining; Language Revitalization; Data Structures & Functional Programming; Object-Oriented Programming and Data Structures; Discrete Mathematics; Linear Algebra

**Danish Institute for Study Abroad** | Copenhagen, Denmark

Jan 2023-May 2023

Core Program: Game Development

## PROFESSIONAL EXPERIENCE

**Communications Assistant** | *Cornell University* | Ithaca, NY

Sep 2023-May 2024

- Assist in development of press releases along with print, digital, and web content
- Compose monthly newsletter that communicates diversity, equity, inclusion, and belonging efforts and engagement opportunities in the Ann S. Bowers College of Computing and Information Science
- Create stories, strategies, and promotional materials for multimedia channels and social media platforms

## RESEARCH EXPERIENCE

**Research Fellow** | *University of Maryland* | College Park, MD

Aug 2024-Present

- Mentored by Naomi Feldman as 2024-25 Baggett Fellow in the University of Maryland Department of Linguistics
- Conduct computational linguistics research focused primarily on linguistic decisions in large language models
- Audited/enrolled coursework in linear algebra, linguistics, and computational cognitive science

**Literatures in English Honors Candidate** | *Cornell University* | Ithaca, NY

Aug 2023-May 2024

- Advised by Jane Juffer and Matthew Wilkens
- Analyze history of literary canon and the tradition of authorship in discussion with literary works produced by generative AI and large language models by applying literary and media theory concepts
- Study OpenAI’s GPT 3.5 alongside university policy and social opinion on generative-AI authorship

**Visiting NLP Researcher** | *Johns Hopkins University* | Le Mans, France

Jun 2023-Aug 2023

- Participant in 2023 Jelinek Summer Workshop for Speech and Language Technology (JSALT) at the Laboratoire Informatique du Mans (LIUM) in Le Mans, France
- Worked under Ehsan Variani, Lucas Ondel-Yang, Ke Wu, and Sanjeev Khudanpur
- Design a PyTorch library version of the Lattice-based Speech Transducer JAX library to demonstrate the benefits of weighted finite state transducers with end-to-end pipelines with real-use speech processing applications
- Research the JAX/FLAX and PyTorch APIs to maintain comparable functionality across libraries

**Computer Vision Researcher** | *Brown University* | Providence, RI

Jun 2022-Aug 2022

- Mentored by Daniel Ritchie
- Develop machine learning model for language-based image-to-image domain translation
- Adapt image-to-image translation pix2pix model architecture and pre-trained text-image embedding model

**Undergraduate Researcher** | *Brown University* | Providence, RI (Remote)

Jan 2022-May 2022

- Mentored by Srinath Sridhar in exploreCSR: Socially-Responsible AI for Computational Creativity semester-long program
- Create and process 1600-image dataset using OpenCV methods for model training, testing, and validation
- Finetune cycleGAN model architecture for image translation of video game shots to photorealistic domain

- Undergraduate Research Assistant** | *Cornell University* | Ithaca, NY (Remote) **Feb 2021-Sep 2021**
- Review, summarize, and analyze relevant literature and computational sustainable methodologies surrounding water resource management and planning to assist Patrick Reed in The Reed Research Group
  - Implement an algorithm that calculates optimal policies for managing a given ecosystem and parameters

## POSTERS & PRESENTATIONS

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### **By AI: Authorship, Literature, and Large Language Models**

*Presentation* | Humanities Scholar Program Spring Research Conference | Ithaca, NY | May 3, 2024

### **Literature in the Age of Mechanical Reproduction**

*Presentation* | Cornell University Department of Comparative Literature Theory Colloquium | Ithaca, NY | Feb 16, 2024

### **Final: Finite State Methods with Modern Neural Architectures for Speech Applications and Beyond**

*Presentation* | Jelinek Summer Workshop for Speech and Language Technology (JSALT) | Le Mans, France | Aug 4, 2023

### **Language-Based Material Manipulation for Transforming Sketches into Images**

*Poster* | Brown University Summer Research Symposium | Providence, RI | Aug 5, 2022

*Poster* | The Leadership Alliance National Conference | Hartford, Connecticut | Jul 29-31, 2022

### **Realizing the Forbidden West: Translating Gameplay into Hyper-realistic Action Shots**

*Poster* | Brown University Computer Science Undergraduate Research Symposium | Providence, RI | May 5, 2022

## PUBLICATIONS

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**How biased are text-to-image models?** | *Medium* | [Article](#) | April 7, 2022

**Bias in ML: An Introduction** | *Medium* | [Article](#) | December 5, 2021

## TEACHING & MENTORSHIP EXPERIENCE

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**Workshop Facilitator** | *University of Maryland* | College Park, MD

**Nov 2024-Present**

- Volunteer facilitator for creative computing workshops with the University of Maryland African American Digital & Experimental Humanities (AADHum) Lab and Prince George's County Teen Action Group (TAG)
- Taught 20 high school students how to program a wearable tech product in Python in Mu Editor
- Designing a workshop to teach high school students to build small language models

**Teaching Assistant** | *Cornell University* | Ithaca, NY

**Jan 2024-May 2024**

- Advise students in developing experiments, data collection, and implementing advanced NLP systems
- Grade projects and host biweekly 1-hour office hours for 15-student seminar course, Advanced NLP for Humanities Research (INFO 4940)

**Underrepresented Minorities in Computing (URMC) Mentor** | *Cornell University* | Ithaca, NY

**Jan 2022-May 2024**

- Provide tools, resources, and plans for social, academic, and professional development/opportunities for 2 international students in the Ann S. Bowers College of Computing and Information Science

**Course Consultant** | *Cornell University* | Ithaca, NY

**Jan 2022-May 2022**

- Lead weekly 50-minute discussion sections to 20 students to review their understanding of discrete mathematics
- Grade homework and exams at least once a week in 2-hour sessions for a roughly 280-student course (CS2800)

## LEADERSHIP EXPERIENCE

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**Underrepresented Minorities in Computing** | *Cornell University* | *President*

**Dec 2021-Dec 2022**

- Preside over weekly 30-person executive board, oversee the activities of standing committees, and implement technical outreach community support initiatives for 80 on-campus members
- Maintain relationships with 10 existing corporate sponsors and established new relationships with 6 corporations

**Cornell Data Science** | *Cornell University* | [Cornell Bias Lab](#) *Project Manager*

**Sep 2022-Dec 2022**

- Create and manage project plans that align corporate sponsor and 5-person team goals that explore identity biases with(in) machine learning and artificially intelligent systems
- Present findings on 3 commercial machine translation models in "Bias in Translation" project

## **HONORS & AWARDS**

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**2024-25 Baggett Fellowship** | University of Maryland | July 2024

**2024 Outstanding Researcher Award Honorable Mention** | Computing Research Association | December 2023

**Sphinx Head Honor Society** | Cornell University

**2023 Joseph E. Connolly '72 Memorial Prize** | Cornell University | May 2023

**2022 Dean's List Award for Academic Excellence** | Cornell University | December 2022

**2022 CMD-IT/ACM Richard Tapia Conference Scholarship** | Cornell University | September 2022

**2021 Grace Hopper Celebration of Women in Computing Conference Scholarship** | Cornell University | August 2021