## **Ezinne Nwankwo**

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#### Education

## Duke University, Durham, NC

August 2018-May 2021

M.S. in Statistical Science

Harvard University, Cambridge, MA, Class of 2017

Aug 2013-May 2017

B.A. in Applied Mathematics (Focus in Sociology and Statistics)

iXperience Coding Academy, Cape Town, South Africa, Class of 2014

Summer 2014

Built web app that provides more access to political information and opinions of government representation using Ruby on Rails. Presented app to about 50 web-developers.

#### **Work Experience**

#### **Montreal AI Ethics Institute**

Remote

Research Intern July 2019-Aug 2019

- Interned with the AI for Social Impact Team to extend AI social contract framework to other communities and cultures
- Coauthored article discussing Africa's social contract with AI.

## Science, Law and Policy Lab at Duke University

Durham, NC

Research Consultant

Sept 2018-Feb 2019

- Co-led pilot study on human perceptions of artificial intelligence in various contexts using Amazon Mechanical Turk.
- Analyzed results from study using statistical hypothesis tests and Bayesian models.
- Gave talks on artificial intelligence and machine learning for social scientists.

## Leverhulme Center for the Future of Intelligence

Cambridge, UK

Visiting Student

Jan 2018-July 2019

- Served as a team leader for "Trust in AI" workshop at the UN AI for Social Good Conference and co-led project to develop a disease prediction model for poultry farmers in East Africa.
- Developed multiple frameworks for understanding ethical and societal challenges related to AI, data, and algorithms commissioned by the Nuffield Foundation. Helped write internal report summarizing important issues for stakeholders entitled "Ethical and societal implications of algorithms, data, and artificial intelligence: a roadmap for research."
- Analyzed existing AI ethics course syllabi and readings and reported key findings to executive director.
   Proposed a structure for an AI ethics full-time master's course and participated in UK Office of Technology AI Industrial Masters working groups.

Booz Allen Hamilton Boston, MA

Aviation Analytics Intern

Jan 2017-Feb 2017

- Developed logistic regression model to predict the spread of Zika based on airline data, temperature data, and other factors.
- Presented model and findings to senior analysts.

## City of Boston's Department of Innovation & Technology

Boston, MA June 2016-Aug 2016

Citywide Data Analytics Team Intern

- Built dynamic visualizations to display employee demographic data and made recommendations on hiring and recruitment practices for the Chief Diversity Officer.
- Created sample surveys and analyzed data to recommend policy changes to Boston's paid parental leave policy to the Executive Director of the Mayor's Office of Women's Advancement.
- Debugged new Boston Public School website and improved visualizations.

#### The Education Innovation Laboratory at Harvard University

Cambridge, MA

Research Assistant

June 2015-Aug 2015

Coded survey data for NYC tutoring project.

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- Researched college data using online databases for project titled College Knowledge, which was attempting
  to change the way high school students think about applying for college.
- Summarized various studies that utilized randomized control trials for book draft.

## Radcliffe Institute of Advanced Study

Cambridge, MA

Research Assistant

Aug 2014-May 2015

- Examined data using archival and online resources to search for outliers and trends within the data and reviewed articles and book drafts for financial accountability of institutions and nonprofits for education.
- Developed 10 year excel database of government election, nonprofit, & union data.

### Leadership Experience

Black in AI Dec 2018 – present

Board Member

- Co-organized the Black in AI workshop co-located at NeurIPS in 2018 and 2019 to provide a platform for Black researchers to present research in AI. Ensured that over 200 Black researchers were able to travel to conference with appropriate visas, travel and accommodations.
- Coordinating Black in AI Graduate Mentorship program to increase diversity in STEM graduate degree programs and provide undergraduate summer research opportunities in AI.

## **Phillips Brooks House Association**

Assessment and Evaluations Chair

Dec 2015-Aug 2017

- Supported over 70 individual programs and 12 summer programs with ongoing assessment and long-term systems of evaluation.
- Coordinated and administered the annual student experience survey, Summer Urban Program parent survey and youth outcomes survey.
- Analyzed and presented results to directors, volunteers, management, board, and staff.
- Worked with Programming Chairs to vision, develop, and implement central assessment initiatives, and promote data-driven culture of inquiry within PBHA and its programs.
- Built online volunteer application with backend connection to Salesforce to be used centrally by all programs.

#### **Selected Fellowships & Awards**

National Science Foundation (NSF) Innovations in Graduate Education Fellow

Aug 2020-present

Graduate student scholarship to fund research expenses and manage a team of master students on a thesis
project related to algorithmic fairness.

Alfred P. Sloan Graduate Scholarship "Sloan Scholar"

Aug 2018-present

 Graduate student scholarship to fund academic and research expenses, such as conference attendance, travel, publications, etc.

Dean's Graduate Fellowship

Aug 2018-present

• Graduate student fellowship awarded to incoming students by nomination from their department. This fellowship funds the first two years of graduate study.

National Consortium for Graduate Degrees for Minorities Fellowship (GEM)

Aug 2018

• Named Associate Fellow. Funded fellowship for underrepresented minority students looking to pursue advanced degrees in STEM. Provides funding for 5 years of study towards Ph.D.

*Institute for the Recruitment of Teachers (IRT)* 

Oct 2017

• Fellowship for underrepresented minority students looking to pursue advanced degrees given to 100 out of over 1,000 applicants.

Harvard-Cambridge Fellowship

Oct 2017

• Fully-funded year of research at the University of Cambridge given to 4 out of over 180 applicants.

Derek Bok Distinction in Teaching Award

Sept 2017

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Award given to course instructors with overall student evaluations of 4.5 out 5 or higher in recognition of
excellence and strength in teaching.

PBHA Service Award April 2017

• 'Spirit of PBHA Award" is given in recognition of outstanding organizational contributions that have allowed PBHA members to better serve communities.

Winthrop House Public Service Award

April 2017

• Award given for outstanding commitment to and leadership in public service.

Black Men's Forum Senior Leadership Award

April 2017

• Award given for exceptional leadership, dedication and mentorship within the Black student community.

#### **Invited Talks & Presentations**

Digital Innovations Conference, London, UK

July 2020

• Invited panel discussant in "Diversity and Data" Session.

Duke Machine Learning Day Student Workshop

Oct. 2019

Talk title: "A Really Broad Overview in Data Science/Machine Learning Ethics."

The Statistical and Applied Mathematics Institute (SAMSI) "Diversity in Data Science" Conference

Oct. 2019

Talk title: "Applying to Graduate School."

Digital Innovations Conference, London, UK

July 2018

- Talk title: "Beyond Prediction: Algorithmic Decision Making in the Public Sector."
- Invited panel discussant on statistics and computing for social good.

#### **Publications**

Rediet Abebe, Irene Io, Dina Machuve, Francisco Marmolejo-Cossío, Moses Namara, **Ezinne Nwankwo**, and Mwiza Simbeya. "Market and Mechanism Design Challenges in African Agriculture." In preparation.

**Ezinne Nwankwo** and Belona Sonna. 2019. Africa's social contract with AI. XRDS 26, 2 (Winter 2019), 44 – 48. DOI: https://doi.org/10.1145/3368073.

Christine T. Wolf and Ezinne Nwankwo. 2019. Interpreting AI and its place in our worlds. XRDS 25, 3 (Spring 2019), 8-9. DOI: https://doi.org/10.1145/3312530.

**Ezinne Nwankwo,** Thalia Orphee, and Elizabeth Yemane. 2017. Measuring New Orleans Police Department's Body Camera Compliance Rate. Journal for Technology Science. Cambridge, MA.

#### **Posters**

Tabitha Colter, William L.D. Krenzer, **Ezinne Nwankwo**, Kevan Kallmes, Aleah Peffer, and Nita A. Farahany. "From Facebook ads to courtroom risk assessments: Examining public comfort with predictive algorithms." Society for Personal and Social Psychology Conference, 2020.

**Ezinne Nwankwo**, Chinasa T. Okolo, Cynthia Habonimana. "Topic Modeling Approaches for Understanding COVID-19 Misinformation Spread in Sub-Saharan Africa." In the AI for Social Good Workshop (Harvard University CRCS), 2020.

**Ezinne Nwankwo** and Dina Machuve. "Towards Automated Poultry Diseases Diagnostics." In the Mechanism Design For Social Good (MD4SG) Workshop, 2019.

Dina Machuve, Neema Mduma and **Ezinne Nwankwo**. "Towards a Mobile Application for Poultry Information Management." In COMPASS 2019.

**Ezinne Nwankwo**. "Perspectives on Predictive Modelling and Algorithmic Decision-Making in the Public Sector." In the Women in Machine Learning Workshop (WiML) 2018.

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## **Teaching Experience**

- Introduction to Data Science (Duke Fall 2020, Summer 2020).
- Advanced Analytics with R and Python (Duke Fall 2019, Spring 2020).
- Introduction to Functions and Calculus I and II (Harvard Fall 2015, Fall 2016, Spring 2016, Spring 2017).

# Technology

*Advanced:* R, Python.

Working knowledge: HTML, CSS, C++, Matlab.