

Chinasa T. Okolo, Ph.D.

Research Interests	AI governance & policy, AI literacy, human-centered AI, explainable AI, data economies, African development, global health	
Education	Cornell University , Ithaca, NY <i>Master of Science</i> , Computer Science <i>Doctor of Philosophy</i> , Computer Science	2018 – 2023
	Pomona College , Claremont, CA <i>Bachelor of Arts</i> , Computer Science	2014 – 2018
Selected Fellowships, Honors, and Awards	ICICLE Educational Fellow , National Science Foundation Bouchet Graduate Honor Society Scholar , Cornell University Distinguished Leadership in Service Award , Cornell Bowers CIS Provost Diversity Fellowship , Cornell Graduate School Google-CMD-IT LEAP Alliance Dissertation Fellowship , Google Global Racial Justice Graduate Fellow , Mario Einaudi Center Community Outreach Award , Cornell Graduate School blackcomputeHER Fellow , blackcomputeHER.org John Postel Scholar , North American Network Operators Group UNCF Oracle Academy Fellow , Oracle Corporation Graduate Dean’s Scholar , Cornell University GEM Fellowship , The National GEM Consortium Bernard Charnwut Chan ’88 Service Award , Pomona College Bessie Reiner Dill Graduate Fellowship Award , Pomona College Outstanding Senior in Leadership Award , The Claremont Colleges	May 2023 Jan 2023 Nov 2022 Oct 2022 Sep 2022 Aug 2022 May 2022 Mar 2020 Aug 2019 Jul 2019 May 2019 Apr 2019 May 2018 May 2018 May 2018
Publications	Chinasa T. Okolo and Hongjin Lin. “Practitioner Perspectives on Model Explainability in AI for Social Good”. <i>In preparation</i> , 2023. Chinasa T. Okolo . “Towards a Praxis for Intercultural Ethics in Explainable AI”. 2023. Chinasa T. Okolo* , Dhruv Agarwal*, Aditya Vashistha, Nicola Dell. “ ‘If it is easy to understand then it will have value’: Examining Perceptions of Explainable AI with Community Health Workers in Rural India.” <i>Under review</i> , 2023. Chinasa T. Okolo . “Addressing Global Inequity in AI Development”. <i>Handbook of Critical Studies of Artificial Intelligence</i> . Edited by Simon Lindgren. Edward Elgar Publishers. <i>To appear</i> , 2023. Chinasa T. Okolo , Kehinde Aruleba, and George Obaido. “Challenges to Effective AI Adoption and Implementation in Africa”. <i>Responsible AI in Africa - Challenges and Opportunities</i> , pp 35-64. Edited by Kutoma Wakunuma, Damian Eke, and Simi Akintoye. Palgrave Macmillan UK, 2023. Chinasa T. Okolo , Nicola Dell, and Aditya Vashistha. “Making AI Explainable in the Global South: A Systematic Review.” In the <i>Conference on Computing and Sustainable Societies (COMPASS)</i> , 2022. Chinasa T. Okolo . “Optimizing Human-centered AI for Healthcare in the Global South.” <i>Patterns</i> , 100421. Cell Press, 2022.	

Chinasa T. Okolo, Srujana Kamath, Nicola Dell, and Aditya Vashistha. “‘It cannot do all of my work’: Community Health Worker Perceptions of AI-Enabled Mobile Health Applications in Rural India.” In the *Conference on Human Factors in Computing Systems (CHI)*, 2021.

Chinasa T. Okolo. “Privacy and Security Implications of mHealth Applications in Sub-Saharan Africa.” In the *Cornell Healthcare Review*, 2020.

Workshop Publications

Alan Chan*, **Chinasa T. Okolo***, Zachary Turner*, and Angelina Wang*. “The Limits of Global Inclusion in AI Development.” In the *Reframing Diversity in AI: Representation, Inclusion and Power Workshop (AAAI)*, 2021.

Chinasa T. Okolo. “AI in the ‘Real World’: Examining the Impact of AI Deployment in Low-Resource Contexts.” In the *Navigating the Broader Impacts of AI Research Workshop (NeurIPS)*, 2020.

Michelle González Amador* and **Chinasa T. Okolo***. “ACIPS: A Framework for Evaluating Patient Perception in the Introduction of AI-enabled Healthcare.” In the *Data4Good: Designing for Diversity and Development Workshop (AVI)*, 2020.

Ezinne Nwankwo, **Chinasa T. Okolo**, and 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.

Chinasa T. Okolo and Bharath Hariharan. “CNN/RNN Approaches for Irregular Pediatric Respiratory Motion Detection.” In the *Women in Machine Learning Workshop (ICML)*, 2020.

Chinasa T. Okolo and Bharath Hariharan. “Automated detection of irregular pediatric breathing movements.” In the *Women in Computer Vision Workshop (CVPR)*, 2020.

Talks and Presentations

AI Explainability in the Global South: Towards an Inclusive Praxis for Emerging Technology Users

- Pomona College CS Colloquium, *Claremont, CA* Sep 2023
- Yale Digital Humanities Lab Seminar Series, *Virtual* Aug 2023

Towards a Praxis for Intercultural Ethics in Explainable AI

- Many Worlds of AI Conference, *Cambridge, UK* Apr 2023

Examining Perceptions of Explainable AI with Community Health Workers in Rural India

- Stanford MS&E Rising Stars Workshop, *Stanford, CA* May 2023
- MIDAS Future Leaders Summit, *Ann Arbor, MI* Apr 2023
- Yale Bouchet Conference, *New Haven, CT* Mar 2023

Making AI Explainable for Novice Technology Users in Low-Resource Settings

- Microsoft Africa Research Institute Seminar, *Virtual* Mar 2023
- CSRAI Young Achiever Symposium, *Virtual* Feb 2023
- University of Washington Change Seminar, *Virtual* Oct 2022
- Ivy Collective Engineering Doctoral Consortium, *Philadelphia, PA* Oct 2022
- ACM Tapia Doctoral Consortium, *Washington, DC* Sep 2022
- University of Queensland AI4PAN Seminar Series, *Virtual* Aug 2022

- Trustworthy AI Workshop at DeepIndaba, *Virtual* Aug 2022
 - Google Research India AI for Social Good Group, *Bangalore, India* Jul 2022
 - Microsoft Technology & Empowerment Seminar, *Bangalore, India* Jul 2022
 - WiscProf Future Faculty in Engineering Workshop, *Madison, WI* May 2022
- Making AI Explainable in the Global South: A Systematic Review**
- Paper Session 7 (COMPASS), *Seattle, WA* Jun 2022
 - Big Data & AI in the Global South (FAccT), *Seoul, Korea* Jun 2022
- “It cannot do all of my work”: Community Health Worker Perceptions of AI-Enabled Mobile Health Applications in Rural India**
- Justice, Wellbeing and Health Session (CHI), *Virtual* May 2021
 - Technology for Underserved Communities (INFO 6600), *Virtual* Apr 2021
- Optimizing for Human-centric AI in the Global South**
- 2nd ELLIS Workshop on Human-Centric Machine Learning, *Virtual* May 2021
 - Practical ML for Developing Countries Workshop (ICLR), *Virtual* May 2021
- The Limits of Global Inclusion in AI Development**
- Reframing Diversity in AI Workshop (AAAI), *Virtual* Feb 2021
- AI in the “Real World”: Examining the Impact of AI Deployment in Low-Resource Contexts**
- Navigating the Broader Impacts of AI Workshop (NeurIPS), *Virtual* Dec 2020
- Understanding the Role of AI-enabled Healthcare in the Global South**
- 2nd Annual Data Science for Social Good Workshop, *Virtual* Nov 2020
 - Michigan AI Symposium: AI and Health, *Virtual* Oct 2020
- ACIPS: A Framework for Evaluating Patient Perception in the Introduction of AI-enabled Healthcare**
- Black in AI Workshop (NeurIPS), *Virtual* Dec 2020
 - Data4Good: Designing for Diversity & Development, *Virtual* Sep 2020
- Topic Modeling Approaches for Understanding COVID-19 Misinformation Spread in Sub-Saharan Africa**
- Harvard University CRCS AI for Social Good Workshop, *Virtual* Jul 2020
- Computer Vision Techniques for Automatic Analysis of Textured Hair**
- Black in AI Workshop at NeurIPS 2019, *Vancouver, BC* Dec 2019
- Smartphone-based Pneumonia Diagnosis in Sub-Saharan Africa**
- Issues in African Development Seminar Series, *Ithaca, NY* Dec 2019
- Visual Knowledge Representation of Quorum Sensing**
- CRA Graduate Cohort Workshop for Women, *Chicago, IL* Apr 2019
 - CRA Graduate Cohort Workshop for URMs, *Waikoloa, HI* Mar 2019
 - Microsoft Research PhD Summit, *Redmond, WA* Oct 2018

Professional Activities and Service	Equiano Institute <i>Ethics Advisor</i> Advising research on safe and trustworthy AI in Africa.	Aug 2023 – Present
	IEEE Standards Association <i>Working Group Member, Algorithmic Bias</i> Developing guidelines to address issues of bias in algorithm development.	Mar 2023 – Present
	African Union <i>Drafting Member, AU Continental Strategy on AI</i> Developing a report to guide AI strategy & policy within the African continent.	Jun 2022 – Present
	ACM <i>Member, US Technology Policy Committee</i> Consulting on computing-related policy issues.	Jun 2022 – Present
	Lacuna Fund <i>Technical Advisory Panel Member, Racial Equity & Health</i> Reviewed funding applications for research proposals.	Jun 2021 – Dec 2021
	Mechanism Design for Social Good <i>Co-Organizer, Working Group for Development</i> Leading projects focusing on issues pertaining to technology’s role in addressing challenges in emerging markets and under-resourced settings.	2020 – 2021
Program Committees	Paper Reviewer	<ul style="list-style-type: none"> • ACM Conference on Computer-Supported Cooperative Work (CSCW) • ACM Conference on Fairness, Accountability, and Transparency (FAccT) • ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO) • ACM Conference on Human Factors in Computing Systems (CHI) • ACM Conference on Computing and Sustainable Societies (COMPASS) • IEEE Conference on Research in Equity and Sustained Participation in Engineering, Computing, & Technology (RESPECT)
	Workshop Paper Reviewer	<ul style="list-style-type: none"> • Autonomous Agents for Social Good Workshop at AAMAS • Workshop on Machine Learning for the Developing World at NeurIPS • Workshop on Mechanism Design for Social Good (MD4SG) • Practical Machine Learning for Developing Countries Workshop at ICLR • ACM Richard Tapia Celebration of Diversity in Computing Conference
	Conference Chair, Session Chair, Volunteer	<ul style="list-style-type: none"> • ML4H Symposium, Outreach Co-Chair • ACM EAAMO, Registration Co-Chair • ACM COMPASS, Student Volunteer • ICTD Conference, Student Volunteer • ACM FAccT, Session Chair • Women in Machine Learning Workshop (WiML) at NeurIPS, Volunteer

Work Experience

Fellow Aug 2023 – Present
 Brookings Institute Washington, D.C.
 Conducting research and policy analysis on AI-related issues in emerging markets.

Graduate Student Success Consultant May 2022 – July 2023
 Cornell Diversity Programs in Engineering Ithaca, NY
 Developing educational and extracurricular programming for underrepresented STEM graduate and postdoctoral students.

Strategic Growth Research Intern Jun 2022 – Dec 2022
 Harambeans Remote
 Tracked funding updates, investor activity, and venture growth of African startups. Analyzed business models and partnerships to guide organizational restructuring.

HID Health Incubation Intern May 2021 – Aug 2021
 Apple Remote
 Developed new Responsible AI/ML methodologies for health sensing applications.

Ryan Scholars Graduate Coordinator Aug 2019 – May 2022
 Cornell Diversity Programs in Engineering Ithaca, NY
 Hosted academic coaching sessions focused on developing goals and action plans centered on academic, personal, and professional success of scholars in the program.

Strategic Advisor May 2020 – May 2021
 Doing Good Work in Africa (DOWA) Remote
 Formed corporate partnerships with African-based companies, public entities, and NGOs. Connected university students to internship and volunteer opportunities.

TA Development Consultant May 2019 – May 2020
 Cornell University College of Engineering Ithaca, NY
 Developed and co-facilitated workshops to prepare new graduate and undergraduate TAs for their roles in working with students by learning innovative teaching methods.

Program Assistant Jul 2019
 Cornell Diversity Programs in Engineering Ithaca, NY
 Assisted program directors and residential assistants for the CURIE Academy summer program. Mentored high school girls interested in pursuing engineering.

Technology Education Intern Sep 2016 – Dec 2016
 Pomona Hope Community Center Pomona, CA
 Revamped the technology curriculum for K-5 students by introducing computer science concepts in visual programming languages such as Tynker, Blockly, and Lightbot.

Microbiology Laboratory Intern Feb 2015 – May 2015
 Pomona Valley Hospital Medical Center Pomona, CA
 Worked in Point of Care to meet hospital needs such as employee data management, servicing healthcare electronic devices for nurses, and quality control of shipments.

**Research
Experience**

Graduate Research Assistant Jan 2019 – Jul 2023
Cornell University Ithaca, NY

Departments: Computer Science & Information Science
Conducting user studies to understand perceptions and implications of AI in low-resource contexts. Developing explainable AI prototypes to understand important aspects of model decision-making for novice technology users.

Africa's Digital Future Fellow Feb 2023 – March 2023
E4E Remote

Conducting research on tech policy and AI regulation in Africa in preparation for submission to the UN Global Digital Compact.

Research Intern May 2018 – Aug 2018
Microsoft Research Cambridge, UK

Group: Biological Computation, *Mentors:* Andrew Phillips, Paul Grant
Developed techniques for understanding information processing in biological systems. Created computational models and domain-specific tools for bacterial quorum sensing.

Research Assistant Sep 2017 – May 2018
Pomona College Claremont, CA

Department: Computer Science, *Mentor:* Alexandra Papoutsaki
Analyzed gaze prediction and computer vision techniques in eye-tracking library/web applications. Classified training datasets and isolated factors that cause inaccuracy.

NSF REU Student Researcher May 2017 – Aug 2017
Carnegie Mellon University Pittsburgh, PA

Department: Computational Biology, *Mentors:* Robert Murphy, Joshua Kangas
Used software engineering methodologies to improve the UI/UX of CellOrganizer, a tool used to learn generative models of cell organization and synthesize cell images.

Research Assistant Sep 2015 – Dec 2016
Pomona College Claremont, CA

Department: Neuroscience, *Mentor:* Elizabeth Glater
Wrote and edited MATLAB code to efficiently track the movement of *Caenorhabditis elegans*. Ran behavioral assays, made LB agar plates, and inoculated bacteria.

HHMI EXROP Fellow Jun 2016 – Aug 2016
Columbia University New York, NY

Departments: Neuroscience, Physiology, *Mentor:* Michael N. Shadlen
Crafted experiments to test visual perception and decision-making in human and non-human primates by tracking eye movements and response time to visual stimuli.

NSF REU Student Researcher May 2015 – Aug 2015
The University of Georgia Athens, GA

Departments: Computer Science, Infectious Diseases, *Mentor:* Shannon Quinn
Used computational methods to advance analysis of organellar network evolution to detect changes in morphology of epithelial lung cells.

Teaching Experience	<p>Graduate Teaching Assistant Aug 2018 - Aug 2019 Cornell University Ithaca, NY Taught discussion sections and occasional lectures. Hosted office hours for students and coordinated project grading with other class TAs and undergraduate consultants.</p> <ul style="list-style-type: none"> • CS 1112, <i>Introduction to Computing with MATLAB</i> Fall 2018 • CS 2110, <i>Object-Oriented Programming and Data Structures</i> Summer 2019 <p>Collaborative Learning Facilitator Jun 2019 – Aug 2019 Cornell University Ithaca, NY Facilitated recitations and tutored students in the Fundamental Programming Concepts (CS 1109) course.</p>
Coursework	<p>Graduate Level (Computer Science): Advanced Systems; Computer Vision; Advanced Artificial Intelligence; The Structure of Information Networks; Data Science for Social Change</p> <p>Graduate Level (Information Science): Health & Computation; Information, Society, & Technology; Technology for Underserved Communities, Design Research</p> <p>Graduate Level (Business & Management): Business & Management Fundamentals for STEM Graduate Students; Entrepreneurship for Scientists and Engineers; AI Strategy & Applications; Technology Strategy; Entrepreneurial Strategy for Technology Ventures</p>
Leadership and Outreach	<ul style="list-style-type: none"> • CIS Director of Diversity & Inclusion Search Nov 2020 – Jan 2021 Organized graduate student interviews with candidates. • Computer Science Task Force on Fighting Racism Jul 2020 – May 2021 Advised the Task Force on ways to foster inclusion of Black community members. • Computer Science Dean Search Committee Jul 2020 – Aug 2020 Participated in the dean search for the Computer Science Department. • CS Graduate Admissions Committee Nov 2019 – Jan 2023 Reviewed PhD applications and mentored prospective students during departmental visit days. • CodeAfrique Graduate Mentor Dec 2019 – Jan 2020 Taught Ghanaian high school and undergraduate students introductory computer science concepts. • Cornell Graduate Student Ambassador Nov 2019 – Jul 2023 Participating in recruitment events and mentoring prospective students. • SOSA Project Lead Oct 2019 – May 2021 Organized and implemented menstrual health workshops in Nigeria to teach feminine hygiene and reusable pad construction to primary school girls. • Black in AI Sep 2019 – Present Mentoring prospective graduate (MS/PhD) applicants and assisting with graduate school application prep information sessions. • CIS Diversity Committee Mar 2019 – May 2020 Implemented solutions to improve recruitment & retention in graduate programs.