

Tlameo Makati

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Education

Technological University Dublin | Dublin 7, Dublin
Computer Science | 09/2025
School of Computer Science

Dissertation: Inclusive AI for Digital Accessibility

Research Areas: AI for Social Good, Digital Accessibility, Human-Computer Interaction, Participatory Design, Active Inclusion

African Drone and Data Academy | Lilongwe
Drone Technology and Data science | 03/2020
Certificates:

- Association for Unmanned Vehicle Systems International (AUVSI) Trusted Operator Program Certification (TOP Level 2)
- Drone Technology
- Remotely Piloted Aircraft (RPA) Certification of Authority to fly RPAs (Republic of Malawi Department of Civil Aviation)

Botswana International University of Science and Technology | Palapye, Central District
Mechatronics Engineering | 11/2019
Department of Mechanical and Industrial Engineering

Undergraduate Thesis: A Dual-Arm Robotic Nurse for Assistance in Healthcare Facilities

Research Experience

Data x Direction | MA, Boston
Research Intern | 07/2025 - 09/2025

- Explore how data science practices and tools intersect with ethical decision-making, human-centered AI, and governance frameworks.

Humboldt Residency Program | NY, Rochester
PhD Researcher | 08/2023 - 09/2024

- Part of the residency's third cohort, where inequalities in global knowledge systems were discussed.
- Produced a video titled We Don't Talk Anymore, where I used the example of the cultural, social and historical significance of Afro hair braiding techniques, to examine the attempted erasure and survival of traditional knowledge ([We Don't Talk Anymore](#))
- Part of the team that developed and compiled a zine containing essays, book reviews and highlights of the residency on power and knowledge ([kNOw](#))

Rochester Institute of Technology | NY, Rochester
Visiting Scholar | 08/2023 - 09/2024

Center for Accessibility and Inclusion Research Lab (CAIR Lab)

- Part of the Science Foundation Ireland (SFI), Ireland and National Science Foundation (NSF), U.S.A Student Mobility Programme
- Worked on Understanding User's Perspectives in Using Web Accessibility Overlays with CAIR lab

United Nations Environment Programme | Geneva
Engineering intern | 06/2021 - 10/2021

- Performed desktop research on the applications of AI, Robotics, IoT and Drones for Disaster Risk and Response Management
- Organised and led seminars on applications of these technologies in Disaster Management

Botswana International University of Science and Technology | Central District, Palapye
Junior Research Assistant | 11/2016 - 07/2019

- Organised meetings for the labs
- Assisted with lab equipment procurement
- Writing papers
- Assisted with machine learning projects for the lab

Stanford School of Engineering | CA, Stanford
Intern/Student Assistant | 06/2018 - 08/2018

- Research in computer vision and video analysis
- Analysed metrics used to evaluate machine learning algorithms

Publications

2025

- Tlamelo Makati. (2025). Assessing AI's Role in Digital Accessibility. In: El Morr, C., El-Lahib, Y., da Silveria Gorma, R. (eds) Beyond Tech Fixes. Springer, Cham. https://doi.org/10.1007/978-3-031-93022-5_7

2024

- Tlamelo Makati, Garreth W. Tigwell, Kristen Shinohara. (2024). The Promise and Pitfalls of Web Accessibility Overlays for Blind and Low Vision Users. The 26th International ACM SIGACCESS Conference on Computers and Accessibility. <https://doi.org/10.1145/3663548.3675650>

2022

- Tlamelo Makati. (2022). Machine learning for accessible web navigation. In Proceedings of the 19th International Web for All Conference (W4A '22). Association for Computing Machinery, New York, NY, USA, Article 23, 1–3. <https://doi.org/10.1145/3493612.3520463>

2019

- Jamisola, R. S., Mbedzi, O., Makati, T., & Roberts, R. G. (2019, November). Investigating modular relative jacobian control for bipedal robot. In *2019 IEEE International Conference on Cybernetics and Intelligent Systems (CIS) and IEEE Conference on Robotics, Automation and Mechatronics (RAM)* (pp. 428-432). IEEE.

Conference Activity

Conference Talks

2022 - Machine Learning for Accessible Web Navigation, *The 19th International Web for All Conference*, Virtual

2025 - Stakeholders' Perceptions and Understanding of Active Inclusion for the Creation of AI Tools to Support Digital Accessibility, *ACM Conference on Fairness, Accountability, and Transparency (FAccT 2025)*, In-person

Posters

2023 - Makati, T. (2023). Using Machine Learning for Web Accessibility. Technological University Dublin. <https://doi.org/10.21427/PHXB-P991>

Teaching Experience

Technological University Dublin, Senior Demonstrator

01/2022 - 06/2022

- Network Fundamentals
- Software for Global Market
- Program Design

09/2022 - 12/2022

- Client Serving Programming
- Algorithms Design
- Web Development

09/2025 - 12/2025

- Web Development
- Program Design
- Object-Oriented Programming

Fellowships and Awards

2024: Humboldt Residency Programme, with a 5% acceptance rate and 2000+ applicants

2023: Dublin-Rochester International CRT-NRT Mobility Program.

2020: African Drone and Data Academy Scholarship

2015 -2019: Department of Tertiary and Education Fund (Botswana), Grant for undergraduate engineering degree

2018: Summer Undergraduate Research Fellow, Stanford School of Engineering

Selected Speaking Engagements

- Tlamele Makati and Zimele Gwebu, Poster: “Semi-Automated Detectable Life Band” presented at the Research and Innovation Symposium BIUST, 12 June 2017.
- Tlamele Makati, Poster: “Evaluating Temporal Structures in a Supervised Setting” presented at the Summer Undergraduate Research Fellowship(SURF) program at Stanford School of Engineering, 9 August 2018.
- Tlamele Makati, Tagala Smarts and Dimpho Kgosiemang, Poster: "A Dual-Arm Robotic Nurse for Assistance in Healthcare Facilities" presented at the Research and Innovation Symposium BIUST, 05 June 2019
- Tlamele Makati, Invited Speaker: "Introduction to Machine Learning" at the IndabaX Botswana, 19 June 2019
- Tlamele Makati, Invited Speaker: "Introduction to AI Design & Development" at Women Techmakers Southern Africa, International Women's Day, March 28 2021. [Intro to AI Design and Development](#)

Outreach and Leadership

- **She Heads Innovative Frameworks in Technology (S.H.I.F.T Club)** - President: November 2018 - 2019, BIUST,BOTSWANA - A club dedicated to giving women a leg up in the science and engineering community so that they not only increase in numbers but also start to take high-level positions.
- **Science, Technology, Engineering and Mathematics Tertiary Students Mobilization Committee (STEM TSMC)** - Research and Innovation Office: February 2019 - August 2019, BIUST, BOTSWANA - A committee formed to help mobilize and encourage tertiary students to participate in the annual STEM festival hosted by BIUST.
- **Women in Machine Learning and Data Science (WiMLDS Gaborone Chapter)** - Co-Organiser: March 2019 - Present - A Gaborone Chapter of Women in Machine Learning and Data Science that encourages inclusion, diversity and gender equality. The organisation was inspired by the Women in Machine Learning Workshop, held annually co-located with NeurIPS.

Professional Memberships

Association of Computing Machinery (ACM), *Student Member*

Media

- 2024: 120+ Women Spearheading Advances in Visual Tech and AI - LVD Capital ([Link](#))
- 2024: *We Don't Talk Anymore* Short film – Humboldt Residency-Programme ([Link](#))
- 2020: African Union 'Sauti' blog: *Healing: An Endless Maze* ([Link](#))

References

Available upon request