

Oluwami Dosunmu-Ogunbi (Wami)

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EDUCATION

University of Michigan	Ann Arbor, MI
Ph.D., Robotics	2024
M.S., Robotics	2021
M.S.E., Mechanical Engineering	2020
University of Illinois at Urbana-Champaign	Urbana, IL
B.S., Mechanical Engineering with Honors, Hoeft Technology and Management minor	2017

PUBLICATIONS

Conference

- O. Dosunmu-Ogunbi**, A. Shrivastava, G. Gibson, J. Grizzle. *Stair Climbing using the Angular Momentum Linear Inverted Pendulum Model and Model Predictive Control*. International Conference on Intelligent Robots and Systems (IROS). 2023.
- G. Gibson, **O. Dosunmu-Ogunbi**, Y. Gong, and J. Grizzle. *Terrain-Adaptive, ALIP-Based Bipedal Locomotion Controller via Model Predictive Control and Virtual Constraints*. International Conference on Intelligent Robots and Systems (IROS). 2022.
- O. Dosunmu-Ogunbi**, A. Shrivastava, J. Grizzle. *Demonstrating a Robust Walking Algorithm for Underactuated Bipedal Robots in Non-flat, Non-stationary Environments*. (In Review).

Workshop

- O. Dosunmu-Ogunbi**, J. Grizzle. *Stair Climbing using the Angular Momentum Linear Inverted Pendulum Model and Model Predictive Control*. International Conference on Intelligent Robots and Systems (IROS), Agile Robotics: Perception, Learning, Planning, and Control Workshop. 2022.

Reviewed Abstracts

- O. Dosunmu-Ogunbi**, A. Shrivastava, J. Grizzle. *Ascending New Heights: Enhancing Bipedal Robotic Locomotion through Stair Climbing*. Midwest Robotics Workshop (MWRW). 2024.
- O. Dosunmu-Ogunbi**, A. Shrivastava, J. Grizzle. *Navigating the sim2real Gap for a Terrain-Aware Stair Climbing Algorithm for Underactuated Bipedal Robots*. Yale Bouchet Conference on Diversity and Graduate Education. 2024.

AWARDS & FELLOWSHIPS

Intersectional Advocacy Award	2024
MLK Spirit Award for Mentoring and Inspiration	2024
Engineering Innovation Runner-Up in the 3 Minute Thesis Competition (\$3000 prize)	2023
College of Engineering Student Funding Co-Curricular and Experiential Learning Fellowship	2023
Robotics DEI Travel Fellowship	2023
Rackham Conference Travel Fellowship	2022
Willie Hobbs Moore Achievement Award	2022
Ford Foundation Pre-Doctoral Fellowship (Honorable Mention)	2021
Rackham Merit Fellowship	2017
GEM Fellowship	2017
Paul E. Parker Award	2017
Janet Eakman Award for Excellence	2017
H.L. Wakeland Undergraduate Leadership Award	2017

HONORS

Bouchet Graduate Honor Society	2024
Robotics Outreach Ambassador	2021, 2022, 2023
Knights of Saint Patrick	2017
Hoeft Technology and Management Program	2016
Chancellor Scholars Program	2014

GRANTS

University of Michigan Office of Research (UMOR) Small Scale Research Grant 2019

TEACHING EXPERIENCE

University of Michigan

ROB 101 Computational Linear Algebra, *Course Project Developer* (Fall 2020)

ME 495 Laboratory II, *Graduate Student Instructor* (Winter 2020)

ME 450 Senior Capstone Design, *Graduate Student Instructor* (Winter 2019, Fall 2019)

University of Illinois at Urbana-Champaign

Introduction to Mechanical Engineering, *Lead Department Instructor* (Fall 2016), *Instructor* (Fall 2015)

Introduction to MATLAB and Excel, *Instructor* (Fall 2015)

Introduction to Engineering Project Course, *Teaching Assistant* (Summer 2014)

RESEARCH AND WORK EXPERIENCE

University of Michigan

Postdoctoral Researcher, The Biped Lab

Graduate Researcher, The Biped Lab

Graduate Researcher, Smart and Sustainable Automation Research Lab

Ann Arbor, MI

2024 – Present

2020 – 2024

2017 – 2020

University of Illinois at Urbana-Champaign

Undergraduate Researcher, Motion Strategy and Virtual Reality Laboratory

Urbana, IL

2015

National University of Singapore

Undergraduate Researcher, The Mechatronics and Automation Laboratory

Singapore

2015

Toyota Motor Corporation

Engineering Co-op

Princeton, IN

2014

INVITED TALKS

University of Maryland – Microsoft Future Leaders in Robotics and AI

Harvey Mudd College – Engineering Seminar

California Institute of Technology – AMBER Lab & The Burdick Group

2024

2024

2023

PROFESSIONAL DEVELOPMENT

NextProf Nexus Workshop, *Acceptance rate: 24%*

Robotics Leadership Development Program

NextProf Pathfinder Workshop

2023

2023

2018

RESEARCH MENTORING

Masters Students

Aayushi Shrivastava, M.S., Robotics

2022 – Present

Undergraduate Students

Ankita Mahajan, B.S., Electrical Engineering

Justin Lu, B.S., Computer Science

Miles Bronson, B.S., Computer Science

Victor Popa-Simil, B.S., Biomedical Engineering

Yamato Miura, B.S., Computer Science

Yichen Wang, B.S., Electrical Engineering

Nadya Barghouty, B.S., Mechanical Engineering

2022 – Present

2022 – Present

2022

2022

2022 – Present

2022 – 2023

2019

OUTREACH

For Inspiration and Recognition of Science and Technology (FIRST) Tech Challenge Qualifier, <i>Judge</i>	2024
Women in Science & Engineering (WISE) – Girls in Science and Engineering (GISE), <i>Presenter</i>	2022
Marygrove Highschool Visit, <i>Presenter</i>	2022
Science Olympiad, <i>Volunteer</i>	2022
FIRST Tech Challenge Kickoff, <i>Presenter</i>	2021
NxtGEN STEM Scholars - Robotics Domain, <i>Presenter</i>	2021
Detroit Area Pre-College Engineering Program (DAPCEP), <i>Organizer and Instructor</i>	2018 – 2020
Discover Engineering, <i>Organizer and Instructor</i>	2018 – 2019
Xplore Engineering, <i>Organizer and Instructor</i>	2018 – 2019
Research Education and Activities for Classroom Teachers (REACT), <i>Instructor</i>	2018
Females Excelling More in Math Engineering and the Sciences (FEMMES), <i>Organizer and Instructor</i>	2017
A Walk for Education, <i>Volunteer</i>	2015 – 2016
High School Visitation Program, <i>Organizer and Instructor</i>	2013 – 2015

SCHOLARSHIPS

John and Dorothy Durkin Women in Engineering Scholarship	2016
Illinois Engineering Achievement Scholarship	2016
Campus Honors Program Summer Travel & Research Scholarship	2016
Mechanical Engineering Alumni Scholarship	2014
Fred A. Eggers Flagship Scholarship	2016
BP Scholarship	2014, 2015
International Engineering Travel Scholarship	2014, 2015
International Engineering MEP Travel Scholarship	2014
Kaiser Aluminum Mechanical Engineering School Scholarship	2013, 2014, 2015, 2016
University Achievement Scholarship	2013, 2014, 2015, 2016

MEDIA

IEEE Spectrum Video Friday: Punch-Out , November 24, 2023, Article
“Celebrating the Robotics Outreach Ambassadors of 2023” , August 23, 2023, Article
“The 2022 Robotics Outreach Ambassadors.” August 26, 2022, Article
“Why the McNeils give: Family legacy and a shared commitment to diversity.” May 20, 2022, Article
“Announcing the 2021 Robotics Outreach Ambassadors.” August 31, 2021, Article
“Data Robotics” Tech Talk hosted by BDPA and Daugherty , August 17, 2021, Tech Talk
“A Scientist Walks into a Bar.” May 11, 2021, Talk Show Episode
“Dosunmu-Ogunbi wins college leadership award.” March 24, 2017, Article
“MechSE undergraduate women named Knights of St. Patrick.” February 3, 2017, Article
“Scholarship Impact: Wami Dosunmu-Ogunbi.” November 22, 2016, Article
“This undergrad has perfected the balancing act.” April 15, 2016, Article

ACTIVITIES

Gender Diversity in Robotics (GENDiR), <i>Co-Founder and Board Member</i>	2022 – 2024
Movement of Underrepresented Sisters in Engineering and Science, <i>President and Board Member</i>	2020 – 2023
Graduates Out in Science, Technology, Engineering, and Mathematics (GoSTEM), <i>Board Member</i>	2022 – 2023
Asexual/Aromantic Centerspace, <i>Book Club Host</i>	2022
Mechanical Engineering Graduate Council, <i>Outreach Chair</i>	2017 – 2019
Pi Tau Sigma Mechanical Engineering Honors Society, <i>Sandcasting/Trebuchet Chair</i>	2016 – 2017
National Society of Black Engineers, <i>Chapter Advisor, Senator, and Pre-Collegiate Initiative Chair</i>	2013 – 2015
Published Author of Young Adult Science Fiction Novels	2013, 2014, 2015