Clinton Enwerem

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Research Interests

Applied Control Theory, Mobile Robotics, Machine Learning

Education

University of Maryland, College Park, MD
Ph.D., Electrical & Computer Engineering, Expected May 2026

University of Nigeria, Nsukka, Enugu, Nigeria
Bachelor of Engineering, Electrical Engineering, Aug 2018 — GPA: 3.84

Research Experience

Research Assistant — Aug 2021 – Present
Institute for Systems Research, University of Maryland — College Park, MD
• Research Focus: Trusted Autonomous Systems, Robust Robot Control.
• Advisor: Professor John S. Baras

Graduate Research Assistant — Sep 2018 – Dec 2020
Control & Instrumentation Lab – EE Department, University of Nigeria, Nsukka — Enugu, Nigeria
• Research Themes: Robust Control, Observer-Based Compensator Design, Feedback Linearization

Undergraduate Research Assistant — Aug – Oct 2017
Control & Instrumentation Lab – EE Department, University of Nigeria, Nsukka — Enugu, Nigeria
• Research Themes: Feedback Control, Time-Delayed Systems, System Identification.

Professional Experience

Research Intern — Jun - Aug 2022
University System of Maryland at Southern Maryland — California, MD
• Worked in collaboration with the MATRIX Lab on problems spanning multi-agent cooperative control, formation control, and target tracking.
• Supervisor: Dr. Danilo Romero

Robotics Trainee — Mar 2020 – Feb 2021
Robotics & Artificial Intelligence Nigeria — Ibadan, Nigeria
• Built hardware and wrote visual SLAM software for a modular differential-drive mobile robot.
• Prototyped a low-cost flight control and communications system for a quadrotor delivery drone as part of a team.
• Developed software for an obstacle-avoiding, teleoperable, and ROS-compliant ground vehicle equipped with a single-board computer and a ranging sensor.

Publications

Conference Papers:
• I. Okoro and **C. Enwerem**, "Model-based Speed Control of a DC Motor using a Combined Control Scheme," 2019 IEEE PES/IAS PowerAfrica, Abuja, Nigeria, 2019, pp. 1-6, **doi**: 10.1109/PowerAfrica.2019.8928856.

Journal Papers:
• I. Okoro and **C. Enwerem**,"Robust Control of a DC Motor," Heliyon, vol. 6, no. 12, pp. 1-8, 2020, **doi**: 10.1016/j.heliyon.2020.e05777.

Technical Skills

Robotics Tools: ROS, Gazebo, RViz, MoveIt!, CoppeliaSim.
Languages: Matlab, C++, Python, Bash, LaTeX.
Web: HTML, CSS, Markdown.
Applications: Visual Studio Code, git.
Operating Systems: Linux, Windows.

Relevant Courses

Doctoral: Convex Optimization, System Theory (Fall 2021); Nonlinear Control Systems, Optimal Control (Spring 2022);
MOOC: Autonomous Navigation for Flying Robots by TUM (Summer 2022);
Postbaccalaureate Training: Advanced Control Theory for Mobile Robots, AI for Humanoid Robotics, Control Theory & IoT (2020).

Honors & Awards

Postbaccalaureate and Doctoral:

- Recipient, 2022-2023 Microsoft Diversity in Robotics & Autonomy Fellowship (2022).
- Diversity Scholar, ROSCon 2022, Open Robotics, Mountain View, CA, USA (2022).
- Finalist, Engineers' League, Pan-African Robotics Competition, Rwanda (2021).
- Recipient, CIT Dean's Fellowship, Carnegie Mellon University, Africa Campus, Kigali, Rwanda (2021).
- Recipient, Dean's Fellowship, University of Maryland, College Park, MD, United States (2021).
- Scholar, Stanford Exposure to Research & Graduate Education, Stanford University, CA, USA (2020).
- Recipient, EducationUSA Opportunity Funds Program Scholarship, U.S. Consulate General (2020).
- Recipient, Door Foundation Leadlight Scholarship, Robotics & Artificial Intelligence Nigeria (2020).

Undergrad:

- Recipient, Agbami Science & Technology Scholarship, Chevron (2016-2018).
- Recipient, MTN Foundation Scholarship (2015-2018).

Service

- Member, Black in Robotics – a U.S. organization that promotes Black representation in robotics.
- Mentor, EducationUSA and the iScholar Initiative - guiding outstanding STEM college graduates to secure full-ride grad admission offers in the U.S.