

Uthman Tijani

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RESEARCH INTERESTS

Human-robot interaction (HRI), Augmented Reality (AR), Robotics, Artificial Intelligence (AI)

EDUCATION

University of South Florida (USF) <i>Ph.D., Computer Science and Engineering</i> <ul style="list-style-type: none">• Advisor: Professor Zhao Han	Aug 2023 - Present Tampa, FL, USA
The Federal University of Technology Akure (FUTA) <i>Bachelor of Engineering, Mechanical Engineering (GPA: 4.15 / 5.00)</i> <ul style="list-style-type: none">• Thesis Title: Development of a Three-Wheel Mobile Robot Utilizing Differential Drive• Advisor: Professor Dahunsi Olurotimi	2017 - 2023 Ondo State, Nigeria

PUBLICATIONS

- **Uthman Tijani**, Hong Wang, and Zhao Han. “[Towards Reproducible Language-Based HRI Experiments: Open-Sourcing a Generalized Experiment Project](#),” 2024 ACM/IEEE International Conference on HumanRobot Interaction (HRI), 2024. **Top HRI conference. 61.3% acceptance rate (Short Contribution).**
- **Uthman Tijani** and Zhao Han. “[Prototyping Mid-Air Display for Anywhere Robot Communication With Projected Spatial AR](#).” 2024 International Workshop on Virtual, Augmented, and Mixed-Reality for HumanRobot Interactions at HRI 2024 (VAM-HRI), 2024.

EXPERIENCE

Reality, Autonomy, and Robot Experience (RARE) Lab, University of South Florida <i>Research Assistant</i> Projects: <ul style="list-style-type: none">• Anywhere Robot Communication with Mid-Air Fog Screen for Spatial AR.• Open-source generalized Choregraphe package for Language-Based HRI Experiments.	Aug 2023 - Present Tampa, FL
Liensy Robotics <i>Intern</i> <ul style="list-style-type: none">• Developed a line follower robot using an Arduino microcontroller.• Implemented MQTT communication protocol on Raspberry Pi to control LEDs using a mobile app.• Designed a CAD model using SOLIDWORKS for four and six-DOF robot arms, and a potato Washing machine in an automated potato chips production line• Developed a publisher-subscriber node, a service-client node in ROS	May 2021 – Oct 2021 Lagos, Nigeria
Hamoye AI Labs <i>Data Science Intern</i> <ul style="list-style-type: none">• Worked on 3 open-source projects: the UK 2016 road safety data - Analysis on traffic accidents in the UK, Mental health in the tech industry - The OSMI survey 2014, and credit card fraud detection.• Developed Neural Networks models of object detection with satellite images to track the human footprint in the Amazon rainforest.• Built a machine learning classification model for managing the quality metric of global ecological footprint.	July 2020 – Dec 2020 Hamilton, Bermuda
Lafbart Innovations and Consulting Ltd. <i>Vehicle Maintenance and Repair Intern</i> <ul style="list-style-type: none">• Carried out scheduled maintenance and repairs such as ignition and braking system on various vehicles	Nov 2019 – Jan 2020 Akure, Nigeria

HONORS & AWARDS

2024 CRA-WP Grad Cohort for Inclusion, Diversity, Equity, Accessibility, and Leadership Skills (IDEALS)	Jan 2024
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GRANTS

NSF I-Corps Site subgrant \$3,000	Jan 2024 – July 2024
<ul style="list-style-type: none">Source: NSF's Innovation Corps (I-Corps) Site at the University of South FloridaRole: Zhao Han (PI), Uthman Tijani (Entrepreneur Lead), Hong Wang (Entrepreneur Lead)	
USF Engineering Alumni Society (EAS) Conference Grant \$250	March 2024
Conference Presentation Grant Program (CPGP), USF Student Government \$500	March 2024

TEACHING EXPERIENCE

Teaching Assistant, University of South Florida COP 4710: Database Design	May 2024 - Present
<ul style="list-style-type: none">Held office hours.	
Teaching Assistant, University of South Florida COP 3515 Advance Program Design	Jan 2024 - May 2024
<ul style="list-style-type: none">Graded quizzes, exams, programming assignments, and held office hours.	
Teaching Assistant, University of South Florida COP 3514 Program Design	Aug 2023 - Dec 2023
<ul style="list-style-type: none">Graded students' exams and weekly programming assignments.Conducted office hours and reviewed exam papers with students.	

MENTORING

Undergraduate Researchers:

- Adrian Lozada** | *Mid-air fog screen display for robot communication* | May 2024 - Present
- Villa Keth** | *Mid-air fog screen display for robot communication* | May 2024 - Present

COMMUNITY ENGAGEMENT & LEADERSHIP

JGHC and ITA Culture Exchange Program, University of South Florida	Fall 2023 & Spring 2024
<i>International Teaching Assistant (ITA) Volunteer</i> <ul style="list-style-type: none">Helped with the completion of the Global Experience Requirement for JGHC undergraduate students.Engaged in weekly sessions, exploring diverse aspects of our respective cultures.	
ITA/CSD Volunteer Collaboration, University of South Florida	Fall 2023 & Spring 2024
<i>International Teaching Assistant (ITA) Volunteer</i> <ul style="list-style-type: none">Helped Communications Sciences and Disorders (CSD) undergraduate students gain international perspectives and experience in providing personalized language support.Paired with an individual CSD student to address specific language aspects such as pronunciation, grammar, vocabulary, fluency, and cultural nuances.	
The Solid Path Initiative, Nigeria	Jan 2021 – April 2024
<i>Volunteer</i> <ul style="list-style-type: none">Worked with a team of 35 members and successfully donated food items to about 100 Muslims in Iju Community, Ondo State, to mark the holy month of Ramadan.Participated in prison visitation and meal donations at the Ondo State Custodial Center Olokuta.Made monthly monetary contributions to assist ailing and disadvantaged members of the public.	
FUTA MSSN Final-Year Students	Dec 2021 – April 2023
<i>Financial Secretary</i> <ul style="list-style-type: none">Oversee the association's bank account and keep records of all generated funds and expenses.Work with the fundraising team to obtain funding for the construction of the MSSN hostel.	

PROFESSIONAL DEVELOPMENT

CRA UR2PhD Graduate Student Mentor Training Program	May 2024 - July 2024
<i>Computing Research Association (CRA) course on effective mentorship and best practices.</i>	
Institut de Robòtica i Informàtica Industrial, CSIC-UPC, Barcelona	July 2022
<i>Robotics and AI Summer School</i> <ul style="list-style-type: none">Workshop on Deep Learning, Assistive Robotics, Human-Robot Interaction (HRI), and Robots Navigation.	
Microsoft Certified: Azure AI Fundamentals	2021
Data Science Nigeria (DSN) AI Boot Camp Qualification Hackathon	Sep 2020
Coven Labs, Nigeria Data Science and AI Trainee	Dec 2019 – Jan 2020

TECHNICAL SKILLS

Languages: Python, C/C++

Softwares and Tools: Linux, ROS, SolidWorks, MATLAB Simulink, Microcontroller/Microprocessors (Arduino and Raspberry Pi)

MEDIA EXPOSURE

- Computing Research News, "[Summer Courses Are In Session: UR2PhD Is Supporting The Next Generation of Researchers](#)", June 2024.