Troi Williams

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Research Interest

My long-term goal is to build competency-aware robotic systems through perception. Such a system uses its onboard sensors and corresponding sensor measurement models to compute how well it can perform tasks (e.g., safely gather images for inspection). To build such a system, I develop methods for learning sensor measurement models that dynamically compute the measurement error (bias and uncertainty) of a system's onboard sensors. These methods, in turn, can help systems determine if they can competently perform a task.

Potential applications include (but are not limited to) multi-robot cooperation, human-robot interaction, infrastructure and disaster inspection, environmental monitoring, conservation, automated warehouses, space robotics, bio-inspired robotics, and explainable AI.

Education

University

University of South Florida (USF) — Tampa, Florida
Dec. 2021, Ph.D. in Computer Science and Engineering
Advisor: Yu Sun

Norfolk State University (NSU) — Norfolk, Virginia
Jul. 2014, M.S. in Computer Science
Advisor: Thorna Humphries

University of the Virgin Islands (UVI) — St. Thomas, Virgin Islands
May 2011, B.S. in Computer Science
Advisor: Marc Boumedine

Special Sessions

Jul. 2022 University of Maryland's Mentoring Workshop Series (Virtual)
Jul. 2021 Eastern European Machine Learning Summer School (Virtual)

Employment

Apr. 2024–Present, President's Postdoctoral and PROMISE Academy Fellow
Department of Computer Science
University of Maryland (College Park, Maryland)
Supervisor: Pratap Tokekar

Updated: April 28, 2024

Sept. 2021–Apr. 2024, Computing Research Association (CRA) Research CIFellow
The Robotics Algorithms & Autonomous Systems (RAAS) Lab
University of Maryland (College Park, Maryland)
Supervisor: Pratap Tokekar

Jun. 2018–Aug. 2018, Graduate Intern
FLEX-IT and Artificial Intelligence Product Group (AIPG)
Intel Corporation (Santa Clara, California)

Aug. 2015–Dec. 2021, Graduate (Ph.D.) Researcher
The Robot Perception and Action (RPAL) Lab
University of South Florida (Tampa, Florida)
Advisor: Yu Sun

Jun. 2015–Aug. 2015, Graduate Intern
Chief Technology and Architecture Office (CTAO)
Cisco Systems, Inc. (San Jose, California)

Aug. 2014–Dec. 2014, Instructor
Community Engagement and Lifelong Learning
University of the Virgin Islands (St. Thomas, Virgin Islands)

Feb. 2014–May 2015, Professional Tutor
Center for Student Success
University of the Virgin Islands (St. Thomas, Virgin Islands)

Aug. 2012–Dec. 2013, Master's Researcher
Department of Computer Science
Norfolk State University (Norfolk, Virginia)
Advisor: Thorna Humphries

Jun. 2012–Aug. 2012, Master's Researcher
Information Assurance Research, Education, and Development Institute
Norfolk State University (Norfolk, Virginia)
Supervisor: Jonathan Graham

Aug. 2011–Dec. 2011, Intern
Project Morpheus Team, Engineering Directorate (EG)
NASA-Johnson Space Center (Houston, Texas)

Jun. 2010–Aug. 2010, Undergraduate Intern
Multimodal Wearable Interfaces Branch, Human Effectiveness Directorate
Air Force Research Lab on Wright-Patterson Air Force Base (Fairborn, Ohio)

Jun. 2009–May 2010, Emerging Caribbean Scientist Undergraduate Researcher
Department of Mathematics and Science

University of the Virgin Islands (St. Thomas, Virgin Islands)
Advisor: Marc Boumedine

Recognition

Awards

Dec. 2023 Winner, Best Poster Award, The 2023 IEEE International Symposium on Multi-Robot & Multi-Agent Systems (MRS)

Sept. 2022 Winner, The 2022 University of Maryland Postdoctoral Symposium Poster Presentation Competition

Sept. 2021 2021 Computing Innovation Fellow (CIFellow)

Jan. 2021 The Koerner Family Foundation Fellowship (Class 2021)

Mar. 2020 The 2020 Computing Research Association–Widening Participation's (CRA-WP) Graduate Cohort Workshop for Underrepresented Minorities and Persons with Disabilities (URMD) Scholarship

Aug. 2019 The 2019 Microsoft Research Dissertation Grant

Mar. 2019 The 2019 CRA's Graduate Cohort Workshop for URMD Scholarship

Sept. 2016 Tapia 2016 Scholarship

Aug. 2015 The Florida–Georgia Louis Stokes for Alliance Minority Participation Bridge to the Doctorate Project NSF Fellowship

Aug. 2015 The Florida Education Fund's McKnight Doctoral Fellowship (*Started Aug. 2017*)

Aug. 2015 The National GEM Consortium Doctoral Fellowship

Aug. 2015 Alfred P. Sloan Foundation's Minority Ph.D. Program's Sloan Scholar

Feb. 2014 2nd Place, 2014 ARTSI Robotics Competition (Tapia Conference)

Feb. 2014 Tapia 2014 Scholarship

Mar. 2013 Winners, 2013 ARTSI Robotics Competition

Jan. 2012 NSU Computer Science Master's Research Assistantship Scholar

Jan. 2010 Thurgood Marshall College Fund Scholar

Jan. 2010 UVI Honorary Top Computer Scientists Award

Jan. 2009 Historically Black Colleges and Universities-Undergraduate Program (HBCU-UP) Scholar

Aug. 2008 Emerging Caribbean Scientist Scholar, Tutor, and Researcher Scholar

Oct. 2009 Computer Science Poster Presentation Winner, The 2009 HBCU-UP National Conference

Publicity

Oct. 2022 Postdoc Troi Williams was interviewed by Alhurra News on robotics [link]

May 2022 CI Fellow Working to Improve Robotic Sensing Capabilities [link], [link]

Jan. 2021 CSE PhD Student Troi Williams Receives Koerner Family Foundation Research Award [link], [link]

Jul. 2019	UVI Cybersecurity Workshop Prepares Students to Become Cyber Defenders [link]
Jul. 2019	Troi Williams Awarded The 2019 Microsoft Research Dissertation Grant [link]
Jan. 2015	Recognition for Efforts and Dedication in Promoting and Aiding in Student Success [link]
Nov. 2010	UVI Green Ambassadors Attending Sustainable Technology Conference [link]
Mar. 2010	Young Minds Shine at UVI [link]
Jan. 2010	UVI Student Researchers Honored at National Conferences [link]

Awards, Contracts, Grants, and Fellowships

External Awards, Contracts, and Grants (Current)

1. Computing Research Association. *Integrating State-Dependent Sensor Measurement Models and Risk-Aware Planning.* Awarded to Troi Williams. Total: $152,000. Duration: Sept. 2021–Apr. 2024.

External Awards, Contracts, and Grants (Completed)

1. Microsoft Research (*Dissertation Grant*). Total: $20,740. Duration: Aug. 2019–Jul. 2020.

External Fellowships and Scholarships

4. The Koerner Family Foundation (*Fellowship*). Total: $10,000. Duration: Jan. 2021–Dec. 2021.

3. The Florida Education Fund (*Ph.D. Fellowship*). Provided financial support. Duration: Aug. 2017–Dec. 2021.

2. The Alfred P. Sloan Foundation (*Ph.D. Fellowship*). Provided financial support. Duration: Aug. 2015–Dec. 2021.

1. The National GEM Consortium (*Ph.D. Fellowship*). Total: $20,000. Duration: Aug. 2015–Jul. 2017.

Internal Fellowships and Scholarships

3. University of South Florida (*The Florida–Georgia Louis Stokes for Alliance Minority Participation Bridge to the Project NSF Ph.D. Fellowship*). Provided financial support. Duration: Aug. 2015–Dec. 2021.

2. Norfolk State University (*Computer Science Master's Research Assistantship*). Provided financial support. Duration: Jan. 2012–Dec. 2013.

1. University of the Virgin Islands (*The Emerging Caribbean Scientist Scholar, Tutor, and Researcher Scholarship*). Provided financial support. Duration: Aug. 2008–May 2011.

Papers and Presentations

I denote the individuals that I mentored using the symbol ($^{\Theta}$).

Peer-Reviewed Journal Articles

1. Troi Williams and Yu Sun. "Leveraging Transfer Learning to Learn State-Dependent, Sensor Measurement Models for Localization." *IEEE Transactions on Robotics*, (*Under Review*).

Peer-Reviewed Conference Proceedings

5. Troi Williams, Kasra Torshizi$^{\Theta}$, and Pratap Tokekar. "Where to Localize?: A POMDP Approach." *IEEE International Conference on Robots and Systems (IROS)*, 2024 (*Under Review*).

4. Troi Williams, Po-Lun Chen$^{\Theta}$, Sparsh Bhogavilli$^{\Theta}$, Vaibhav Sanjay$^{\Theta}$, and Pratap Tokekar. "Where Am I Now? Dynamically Finding Optimal Sensor States to Minimize Localization Uncertainty for a Perception-Denied Rover." *International Symposium on Multi-Robot & Multi-Agent Systems (MRS)*, 2023. [link]

3. Harnaik Dhami$^{\Theta}$, Kevin Yu, Troi Williams, Vineeth Vajipey$^{\Theta}$, and Pratap Tokekar. "GATSBI: An Online GTSP-Based Algorithm for Targeted Surface Bridge Inspection." *International Conference on Unmanned Aircraft Systems (ICUAS)*, 2023.

2. Troi Williams and Yu Sun. "Learning State-Dependent Sensor Measurement Models with Limited Sensor Measurements." *IEEE International Conference on Robots and Systems (IROS)*, 2021. [link]

1. Troi Williams and Yu Sun. "Learning State-Dependent Sensor Measurement Models for Localization." *IEEE International Conference on Robots and Systems (IROS)*, 2019. [link]

Peer-Reviewed Workshops

1. Troi Williams and Yu Sun. "Learning State-Dependent Measurement Likelihood Models with Limited Sensor Data." *Robotics: Science and Systems (RSS) Pioneers workshop*, Jul. 2021.

Lightly Peer-Reviewed Presentations and Posters

13. Troi Williams and Pratap Tokekar. "When to Localize?: A POMDP Approach." *International Symposium on Multi-Robot & Multi-Agent Systems (MRS)*. Boston, MA USA, Dec. 2023. (**Won Best Poster Award**)

12. Troi Williams and Pratap Tokekar. "Dynamically Finding Optimal States to Minimize Localization Error with State-Dependent Noise." *Northeast Robotics Colloquium (NERC)*. Lowell, MA USA, Oct. 2022. (Published in 4)

11. Troi Williams and Pratap Tokekar. "Dynamically Finding Optimal States to Minimize Localization Error with State-Dependent Noise." *The University of Maryland's Postdoctoral Research Poster Symposium Competition.* College Park, MD USA, Sept. 2022. (**Won Best Poster Award**) (Published in 4)

10. Troi Williams and Yu Sun. "Learning State-Dependent, Sensor Measurement Models for Localization." *The 2020 CRA-WP's Graduate Cohort Workshop for URMD.* Austin, TX USA, Mar. 2020. (Published in 1)

9. Troi Williams. "Learning State-Dependent, Sensor Measurement Models for Localization." *The 2019 Microsoft Research Ph.D. Summit.* Seattle, WA USA, Oct. 2019. (Published in 1)

8. Troi Williams and Yu Sun. "Learning State-Dependent, Sensor Measurement Models for Localization." *The Robotics Symposium at the Georgia Institute of Technology.* Atlanta, GA USA, Oct. 2019. (Published in 1)

7. Troi Williams and Yu Sun. "Training an Unmanned Aerial System to Predict the Probability of Collisions." *The University of South Florida's 9th Annual Engineering Research Day.* Tampa, FL USA, Nov. 2016.

6. Troi Williams and Yu Sun. "Using Neural Networks for Autonomous Obstacle Avoidance in Outdoor Environments." *The National GEM Consortium's 2016 Technical Presentation Competition and Poster Session.* Miami, FL USA, Aug. 2016.

5. Troi Williams and Yu Sun. "Detecting Zika-Vector Habitats with Autonomous Unmanned Aerial Systems." *The U.S. Agency for International Development's Unmanned Aerial Vehicle Co-Creation Session for Combating Zika.* Washington, DC USA, Jul. 2016.

4. Troi Williams, Thorna Humphries, and David Touretzky. "Using Kodu to Program Autonomous Robots." *The 27th International Conference of the Florida Artificial Intelligence Research Society (FLAIRS-27).* Pensacola, FL USA, May 2014. (*See* 1)

3. Troi Williams, Thorna Humphries, and David Touretzky. "Using Kodu to Program Autonomous Robots." *The Carnegie Mellon University's Robotics Institute Summer Symposium.* Pittsburgh, PA USA, Aug. 2013.

2. Troi Williams and Marc Boumedine. "Using Tabu Search to Solve the Airport Gate Assignment Problem." *Emerging Researcher's National Conference.* Washington, DC USA, Feb. 2011.

1. Troi Williams and Marc Boumedine. "Using Tabu Search to Solve the Airport Gate Assignment Problem." *The 2009 Historically Black Colleges and Universities - Undergraduate Program National Conference.* Washington, DC USA, Oct. 2009. (**Best Computer Science Poster**)

Theses & Dissertations

2. Troi Williams, *Learning State-Dependent Sensor Measurement Models to Improve Robot Localization Accuracy*. Ph.D. Dissertation, University of South Florida, 2021 [link].

1. Troi Williams, *Programming Idealized Robots in the Harsh Real World*. M.S. Thesis, Norfolk State University, 2014 [link].

Patents

1. Yu Sun and Troi Williams. "Learning State-Dependent Sensor Measurement Models for Localization." Patent No. 10,572,802. Awarded Feb. 2020.

White Papers and Unpublished Papers

2. Troi Williams. "A Qualitative Analysis of the CollECT, DELTA, and DRAGON Wireless Sensor Network Protocols." Cisco Systems, Inc., Aug. 2015.

1. David Touretzky, Troi Williams, and Thorna Humphries. "Rule-Based Programming and the Future of Robotic Toys." The Robotics Institute, Carnegie Mellon University, 2015. [link] (**Used in course 15-494/694 Cognitive Robotics at Carnegie Mellon University**, see [link])

Teaching

1. Teaching Assistant. Department of Computer Science and Engineering, University of South Florida.

   • CIS 6930: Neural Networks and Deep Learning (in-person course) Sp '18
   • CAP 4063: Web Applications Design (in-person course) Fa '17
   • CIS 4083: Cloud Computing for IT (hybrid course) Fa '17

   Duties: In all three courses, I created student projects, provided assessment feedback, and helped the students understand deep learning, web applications, or cloud computing concepts in one-on-one and group sessions during my office hours. For CAP 4063 and CIS 6930, I also collected course material for ABET.

2. Instructor. Department of Computer and Computational Sciences, University of the Virgin Islands.

   • CSC 117: Intro to Programming I Lab (in-person course) Fa '14, Sp '15

   Duties: I created student assessments (including projects), provided feedback on such assessments, and taught the students problem-solving strategies for programming. I also helped the students understand introductory programming and data structures concepts in one-on-one and group sessions during the lab, my office hours, and my tutoring hours.

3. Instructor. Community Engagement and Lifelong Learning,
University of the Virgin Islands.

   • SAT Preparatory Course (in-person course) Fa '14
   • ParaPro Preparatory Course (in-person course) Fa '14

   Duties: I created a lesson plan for each course, developed individual and group assessments, led in-class group discussions, provided feedback on the assessments, and taught quick problem-solving skills for common mathematics problems on SAT and ParaPro tests. I also asked all students to solve problems on the board to promote participation.

4. Teaching Assistant. Department of Computer Science,
Norfolk State University.

   • CSC 467: Advanced Computer Topics II (Robotics) (in-person course) Fa '13

   Duties: I lectured on fundamental robotics concepts such as vision, demonstrated how the Tekkostsu framework worked, and maintained the Calliope2SP robots used for the course. I also helped prepare homework assignments for students and helped them understand introductory robotics concepts in one-on-one and group sessions.

Invited Activities

Talks

1. "Dynamically Finding Optimal States to Minimize Localization Error with State-Dependent Noise." *The Maryland Robotics Center Student Seminar*, College Park, Maryland USA. Sept. 30, 2022. [link]

2. "Dynamically Finding Optimal States to Minimize Localization Error with State-Dependent Noise." *The Maryland Robotics Center Research Symposium*, College Park, Maryland USA. May 31, 2022. [link]

3. "The Journey to Ph.D. by way of Robotics and the Importance of Internships." *The Florida Agricultural and Mechanical University's Frontiers of STEAM: Thought Leaders' Discussion Series*, (Virtual). Feb. 9, 2022. (**Broadening Participation**)

4. "Detecting Zika-Vector Habitats with Autonomous Unmanned Aerial Systems." *The U.S. Agency for International Development's Unmanned Aerial Vehicle Co-Creation Session for Combating Zika*, Washington, D.C. USA. Jul. 20, 2016. (*Unpublished Work*)

Broadening Participation and Mentoring Activities

Prolonged Activities

The symbol ($^{\Lambda}$) denotes that the activity focused on individuals from underserved communities.

1. ^Doctoral Mentoring Program — The UMD Graduate School
   Feb. 2024–May 2024 — University of Maryland

   Purpose: This program offers postdoctoral mentors the opportunity to connect with graduate students beyond their research group or department setting; to support a more junior scholar as they navigate their graduate studies; and to continue practicing the skills a postdoctoral mentor gained in mentoring workhops at UMD.

   Duties: I mentored the doctoral student in bi-weekly, one-on-one meetings each month. The student created the agenda for each meeting, and I answered her questions and provided resources related, but not limited, to funding, conference presentations, peer networking, self-advertising.

   Special Note: I mentored a non-Hispanic, Black woman during this experience.

2. Resource and Event Coordinator — The FLIT-Path Program
   Aug. 2020–May 2021 — University of South Florida (Virtual)

   Purpose: FLIT-Path is a multi-institutional program for student recruitment, retention, and scholarship.

   Duties: I directed students to online and university resources (such as tutoring services and branding development websites) so that they worked towards their professional or academic goals. In addition, I organized and led student-focused professional development panels. For example, during one panel, I asked prior FLIT-Path students to describe how they navigated undergraduate studies and why they chose positions in industry, government, and graduate school.

   Special Note: I ensured each panel was diverse regarding race, ethnicity, and gender.

3. ^Student Mentor — USF PURE Summer Program
   May 2019–Aug. 2019 — University of South Florida

   Purpose: The Preeminence Undergraduate Research Experiences (PURE) Summer Program was a ten-week summer program that exposed local Black and Hispanic community college students to research opportunities within the College of Engineering (CoE).

   Duties: I organized bi-weekly research seminars, where CoE faculty and Ph.D. candidates from underserved communities (in terms of race, gender, and ethnicity) discussed their journey to USF, current research, and advice for conducting undergraduate research. I also helped coordinate student activities such as a visit to the NASA Kennedy Space Center, tours of CoE research laboratories, and a trip to The Florida Education Fund McKnight Conference so that the students networked with Ph.D. students and faculty at universities throughout Florida.

   Special Note: All students were Black (Hispanic and non-Hispanic) and included both men and women.

4. ^Student Mentor — Math Behind the Science (MBS) Program
May 2014–Jul. 2014 — University of the Virgin Islands

Purpose: This annual summer program exposes undergraduates and high school students to concepts within degree programs in the College of Science and Mathematics (for example, marine biology and computer science).

Duties: During the computer science lab, I helped the instructor teach programming and data structures concepts (such as loops, classes, and trees) to undergraduate and university-bound high school students. I also helped develop computer science research projects to assess and showcase what the students learned at the end of the summer program.

Special Note: The students were primarily Black (Hispanic and non-Hispanic) and included both men and women.

5. ^Middle School Mentor — Cyber Camp
May 2014–Jul. 2014 — University of the Virgin Islands

Purpose: This annual summer program exposes local middle school students to cybersecurity concepts and prepares them to compete in the Cyber Patriot National Competition.

Duties: I helped the instructor teach fundamental concepts in computing; two concepts included operating systems and computer networking. I also created novel cybersecurity-related activities for the students using Microsoft's Kodu Game Lab.

Special Note: The students included boys and girls and individuals with limited to no prior experience in computer science. The group was primarily Black (Hispanic or non-Hispanic) or non-Black Hispanic.

6. ^Professional Tutor and Mentor — Center for Student Success
Feb. 2014–May 2015 — University of the Virgin Islands

Duties: I helped students develop their understanding of mathematics and computer science within one-on-one and small-group settings. During these sessions, I helped students identify their problems, encouraged them to use the whiteboard to demonstrate their understanding, and provided guidance whenever they experienced difficulties with a problem. I also supervised student tutors in computer science and mathematics subjects that I tutored.

Special Note: The students I tutored were mainly Black (Hispanic and non-Hispanic), including men and women, and ranged in age (from teenagers to individuals in their 50s).

7. ^Undergraduate Student Mentor — Department of Computer Science
Aug. 2012–Feb. 2014 — Norfolk State University

Purpose: My mentoring and the robotics competitions were related to the Advancing Robotics Technology for Societal Impact (ARTSI) Alliance (see sample NSF award).

The purpose of ARTSI was to "increase African American participation in computer science, with a focus on robotics" through a partnership among multiple HBCUs and R1 institutions.

Duties: I mentored multiple small teams of undergraduate students and led each team during the 2013 and 2014 ARTSI Robotics Competitions. I taught robotics concepts such as computer vision, grasping, and navigation in the context of the Tekkotsu framework and the Calliope2SP robot. I also taught the students how to maintain the Calliope2SP robot and use the Tekkotsu framework to program the robot. Finally, I guided the students on how we can approach ARTSI robotics competitions.

Special Note: All the students that I mentored were Black men from the Computer Science undergraduate program at Norfolk State University. We placed 1st and 2nd during the 2013 and 2014 competitions, respectively.

8. [^]Outreach Volunteer — STARS Outreach Program
Feb. 2012–Dec. 2013 — Norfolk State University

Purpose: A goal of the Science and Technology Academicians on the Road to Success (STARS) Outreach Program strives to "broaden participation and increase the NSU STEM enrollment by partnering with high schools and community colleges in the Tidewater Virginia Area."

Duties: Through the STARs, I performed robotics demonstrations for predominately black junior high and high school students and judged high school robotics competitions. In addition, I demonstrated cybersecurity concepts to K-12 students in the Girl Scouts.

Special Note: Many students participating in these outreach events were Black (Hispanic and non-Hispanic), non-Black Hispanic, or boys and girls in K-12.

9. [^]Student Mentor — Junior University Program
Jun. 2011–Aug. 2011 — University of the Virgin Islands

Purpose: This summer program mentored local Black boys in junior high school who did not progress to the next grade level due to low school scores.

Duties: I helped the course instructor teach students mathematics concepts (such as geometry and algebra). I also helped organize recreational events for the students, such as visiting the local aquarium.

Single-Day Activities

The symbol ([^]) denotes that I mainly worked with or mentored individuals from underserved communities during the event.

Feb. 2021 — Panelist, [^]Meet & Greet–Celebration of Computer Science and Engineering Graduates at the University of South Florida
(Virtual)

Feb. 2020 — Panelist, [^]The University of South Florida's Black to Our Roots
(Tampa, Florida)

Feb. 2015	Coach, [Λ]The University of the Virgin Islands' 1st Hackfest (St. Thomas, Virgin Islands)
Feb. 2014	NSU Team Leader, [Λ]ARTSI Robotics Competition at the Tapia Conference (Seattle, Washington)
Jul. 2013	Volunteer, [Λ]Riverquest Airboats Demonstration (Pittsburgh, Pennsylvania)
Apr. 2013	Instructor, [Λ]Lego Mindstorms NXT Training (Norfolk, Virginia)
Mar. 2013	NSU Team Leader, [Λ]ARTSI Robotics Competition (Baltimore, Maryland)
Mar. 2013	Robotics Demonstrator, [Λ]William H. Ruffner Academy Career Day (Norfolk, Virginia)
Feb. 2013	Judge, Virginia First's First Tech Challenge Competition (Norfolk, Virginia)
Nov. 2012	Instructor, Information Assurance Club Steganography Demonstration (Norfolk, Virginia)
Sept. 2012	Volunteer, [Λ]Girls Scouts Day at Norfolk State University (Norfolk, Virginia)
Nov. 2011	Volunteer, The Lunar and Planetary Institute's Family Space Day (Houston, Texas)
Oct. 2011	Volunteer, Project Morpheus Showcase at the Houston Airshow (Houston, Texas)

Individual Mentoring

I grouped the individuals into categories based on when I began mentoring/advising them. The symbol ([Λ]) denotes individuals from underserved communities in Computer Science and Engineering.

- Undergraduate Students: Jean-Luc Hayes[Λ], Gregory Hinkson[Λ], Christopher Okonkwo[Λ], Eliakin del Rosario[Λ], Vaibhav Sanjay, Vineeth Vaipey.
- Graduate Students: Hailey Baez[Λ], Sparsh Bhogavilli, Po-Lun Chen, Harnaik Dhami, Kasra Torshizi.

Collaborations

The following list specifies the individuals that I am working with or have worked with and their corresponding institutions at the time of the collaboration.

- University of Maryland: Sparsh Bhogavilli, Harnaik Dhami, Po-Lun Chen, Vaibhav Sanjay, Pratap Tokekar, Kasra Torshizi, Vineeth Vajipey.

- University of South Florida: Yu Sun.
- Norfolk State University: Thorna Humphries.
- Carnegie Mellon University: David Touretzky.
- University of the Virgin Islands: Marc Boumedine.

Service

Department

Aug. 2020 –Dec. 2020	ABET Material Collector and Report Generator University of South Florida
Oct. 2017	ABET Material Collector, CAP 4063: Web Applications Design University of South Florida

College/School

May 2022	Seminar Host, Presentation: "Data-driven design of soft robotic sensors" Lockheed Martin Robotics Seminar, University of Maryland
Nov. 2017	USF College of Engineering Representative The 2017 Florida Automated Vehicle Summit
Mar. 2017	USF Graduate School Recruiter The National Society of Black Engineers' 43rd Annual Convention
Sept. 2014	Judge, 2014 Fall Research Symposium University of the Virgin Islands

University

Jul. 2022 –Sept. 2022	Planning Committee The University of Maryland Postdoctoral Symposium
Apr. 2016	Panel Moderator and Judge The University of South Florida's 2016 Undergraduate Research and Arts Colloquium

Organization and Profession

Nov. 2022 –Jun. 2023	Program Committee, Pioneers Workshop The Robotics: Science and Systems Conference
Sept. 2021	Session Chair, Range Sensing Session The IEEE International Conference on Intelligent Robots and Systems
Feb. 2020	Panelist, Computer Science Session The F.E.F. McKnight Mid-Year Research and Writing Conference
Feb. 2017	Chair, Computer Science Session The F.E.F. McKnight Mid-Year Research and Writing Conference

Feb. 2016	Chair, Computer Science Session The F.E.F. McKnight Mid-Year Research and Writing Conference

Review of Manuscripts

- ICRA - 2024, 2023, 2021
- IROS - 2024, 2022, 2020, 2019

Professional Affiliations

Sept. 2020–Present	Black in Robotics
Jun. 2019–Present	Institute of Electrical and Electronics Engineers (IEEE)
Jun. 2019–Present	IEEE Robotics and Automation Society (RAS)
Jun. 2019–Dec. 2021	IEEE Computer Society
Mar. 2018–Present	Black in Artificial Intelligence (A.I.)
Mar. 2017–Mar. 2018	National Society of Black Engineers
Aug. 2014–May 2015	Advisor, UVI Computer Science and Engineering Club
Dec. 2016–Dec. 2021	Intel Artificial Intelligence Student Ambassador Program
Sept. 2013–Jun. 2019	Association for Computing Machinery (ACM)
Sept. 2013–Aug. 2015	Association for the Advancement of Artificial Intelligence (AAAI)
Apr. 2012–Dec. 2013	Secretary, NSU Information Assurance Club
Jan. 2010–Present	Golden Key National Honor Society, UVI-St. Thomas Chapter
Jan. 2010–Jan. 2011	Public Relations Officer, UVI Green Ambassadors

Certification and Knowledge

- Private Pilot License (since 2011): Airplane single-engine land, Airplane multi-engine land, Instrument-rated.
- Natural Languages (proficiency listed according to the ILR scale): English (native), German (elementary proficiency), Spanish (elementary proficiency).