

OLAWALE SALAUDEEN

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EDUCATION

University of Illinois, Urbana-Champaign

August 2019 - Present

Ph.D. Student

Department of Computer Science

Advisor: Sanmi Koyejo

Texas A&M University

August 2015 - May 2019

Bachelor of Science with Honors, Mechanical Engineering

Minors in Computer Science and Mathematics

RESEARCH INTERESTS

Deep Learning, Meta/Transfer Learning, Causality

RESEARCH EXPERIENCE

University of Illinois, Urbana-Champaign

August 2020 - Present

Beckman Institute Graduate Research Fellow - Champaign, Illinois

- Developing a causal structure learning framework for effective connectivity in the brain using functional Magnetic Resonance Images (fMRI)

University of Illinois, Urbana-Champaign

August 2019 - Present

Graduate Research Assistant - Champaign, Illinois

- Developed a learning framework for estimating multi-modal individual treatment effects, correlated changes, and counterfactuals in the context of human performance optimization

Texas A&M University Multi-Robotic Laboratory

October 2018 - May 2019

Undergraduate Researcher - College Station, TX

- Created and analyzed a novel geometry-based motion planning algorithm for tethered robots

PROFESSIONAL EXPERIENCE

Sandia National Laboratories

May 2017 - Present

Year-Round R&D Intern - Albuquerque, NM

- **2020.** Working on a team to develop models to classify organic materials in X-ray images
- **2020.** Designed and executed experiments to investigate the effectiveness of Reinforcement Learning in sequence to sequence generation - Deep Q Network in the context of automated code generation
- **2019.** Implemented a rationale generating Recurrent Convolutional Neural Network model for triage classification of triggered network security alerts
- **2019.** Prototyped a Convolutional Neural Network framework for semantic segmentation of X-Ray images of Improvised Explosive Devices and generation of a graphical model of designs of the devices
- **2018.** Developed and implemented a multi-modal deep Recurrent Neural Network framework for classifying safety rules for maintenance tasks from mixed numerical and textual tasks descriptions

- **2018.** Extended a 2D Simultaneous Localization and Mapping (SLAM) algorithm for ground systems to 3D for air systems equipped with 3D-LIDAR, IMU/GPS
- **2017.** Designed and prototyped an intrusion detection and localization system using fiber-optic disturbances
- **2017.** Researched and presented applications of big data analysis to learn physical properties of a configuration space based on electromagnetic disturbances in transmitted wireless signals

SERVICE

- **2020-.** UIUC Graduates Engineers Diversifying Illinois, mentor upperclassmen undergraduate students in goal setting, career planning, and academic development
- **2020-.** UIUC Institute for Inclusion, Diversity, Equity, and Access (IDEA), Affiliate Member
- **2017-.** HMTech, mentored underrepresented High School students interested in STEM
- **2015-2019.** Regents Scholar Program, mentored first generation college students in Engineering

HONORS AND AWARDS

- **2020-.** Beckman Institute Graduate Fellow at the University of Illinois at Urbana-Champaign
- **2019-.** Sloan Scholar, Alfred P. Sloan Foundation's Minority Ph.D. (MPHD) Program
- **2017.** Texas A&M University Foundation Excellence Award
- **2018.** Texas A&M University Mechanical Engineering Advisory Council Scholarship
- **2016-.** Pi Tau Sigma, Sigma Delta
- **2015-2019.** Craig and Galen Brown Honors College of Engineering
- **2015-.** Regents Scholar Program, Texas A&M University