

Curriculum Vitae

Education

- 2019 **PhD in Electrical Engineering**, *University of Texas at Dallas*, Richardson, TX, United States.
2012 **Master of Science in Engineering in Control Systems**, *The University of Sheffield*, UK.

Publications

Azar Sadeghnejad Barkousaraie, **Olalekan Ogunmolu**, Steve Jiang, and Dan Nguyen. [A Fast Deep Learning Approach for Beam Orientation Selection Using Supervised Learning with Column Generation on IMRT Prostate Cancer Patients](#). Under review at *Medical Physics*, April 2019.

Azar Sadeghnejad Barkousaraie, **Olalekan Ogunmolu**, Steve Jiang, and Dan Nguyen. [Deep BOO: Using supervised learning and guided Monte Carlo tree search for beam orientation optimization in radiation therapy](#). Under review at *International Conference on Medical Image Computing and Computer Assisted Intervention, XXII (MICCAI)*, Shenzhen, China. October 2019.

Azar Sadeghnejad Barkousaraie, **Olalekan Ogunmolu**, Steve Jiang, and Dan Nguyen. [Deep Learning Neural Network for Beam Orientation Optimization](#). To appear in *International Conference on the use of Computers in Radiation Therapy XVI (ICCR)*, Montreal, CA. June 2019.

Olalekan Ogunmolu, Azar Sadeghnejad Barkousaraie, Dan Nguyen, Nicholas Gans, and Steve Jiang. [A Monte Carlo Tree Game for Beam Orientation Optimization](#). To appear in *International Conference on the use of Computers in Radiation Therapy XVI (ICCR)*, Montreal, CA. June 2019.

Olalekan Ogunmolu, Michael Folkerts, Dan Nguyen, Nicholas Gans, and Steve Jiang. [Deep BOO: Automating Beam Orientation Selection in Intensity Modulated Radiation Therapy](#). To appear at *Algorithmic Foundations of Robotics XIII, International Workshop (WAFR)*, Mérida, Mexico. December 2018.

Olalekan Ogunmolu, Nicholas Gans, and Tyler Summers. [Minimax Iterative Dynamic Game: Application to Nonlinear Robot Control Tasks](#). *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Madrid, Spain. October 2018. DOI: 10.1109/IROS.2018.8594037

Olalekan Ogunmolu, Dan Nguyen, Xun Jia, Weiguo Lu, Nick Gans, and Steve Jiang. [Automating Beam Orientation Optimization for IMRT Treatment Planning: A Deep Reinforcement Learning Approach](#). *60th Annual Meeting of the American Association of Physicists in Medicine, Nashville, TN (AAPM)*. July 2018.

Yara Almubarak, Joshi Aniket, **Olalekan Ogunmolu**, Xuejun Gu, Steve Jiang, Nicholas Gans, and Yonas Tadesse, [Design and Development of Soft Robots for Head and Neck Cancer Radiotherapy](#). *SPIE: Smart Structures + Nondestructive Evaluation*, Denver, CO, U.S.A. March 2018.

Olalekan Ogunmolu, Adwait Kulkarni, Yonas Tadesse, Xuejun Gu, Steve Jiang, and Nick Gans. [Soft-NeuroAdapt: A 3-DOF Neuro-Adaptive Pose Correction System For Frameless and Maskless Cancer Radiotherapy](#). *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Vancouver, BC, Canada. September 2017. DOI: 10.1109/IROS.2017.8206211.

Olalekan Ogunmolu, Xuejun Gu, Steve Jiang, and Nick Gans. [Vision-based control of a soft-robot for Maskless Cancer Radiotherapy](#). *IEEE Conference on Automation Science and Engineering (CASE)*, Fort-Worth, Texas, August 2016. DOI: 10.1109/CoASE.2016.7743378.

Invited Talks

Stanford University [Robotic Radiotherapy: Automating Position Correction in Intensity-Modulated Radiation Therapy](#). Department of Energy Resources Engineering, Stanford University, Stanford, CA, USA. November 2018.

Open Robotics [Soft-Robotic Position Correction Mechanisms in Intensity-Modulated Radiation Therapy](#). Open Robotics Foundation, Mountain View, CA, USA. January 2019.

UChicago [Robotic Radiotherapy: Automating Position Correction in Intensity-Modulated Radiation Therapy](#). Department of Radiation and Cellular Oncology, The University of Chicago, Chicago, IL, USA. November 2018.

ATR CNS Labs [Minimax Iterative Dynamic Game](#). Department of Brain Robot Interface, Computational Neuroscience Labs, ATR, Osaka, Japan. August 2018.

UTSW, Dallas, TX A 3-DOF Neuro-Adaptive Patient Pose Correcting System For Frameless and Maskless Cancer Radiotherapy, *Physics Research Seminar Series, Radiation Oncology Department, UT Southwestern Medical Center*, Dallas, TX, USA. March 2017.

IEEE Arlington, TX Towards automated accurate patient positioning in maskless cancer radiotherapy. *IEEE Computational Intelligence Society*, UT Arlington, TX, USA. December 2015.

Awards and honors

- **President's Teaching Excellence Award for Teaching Assistants** Nominated Feb. 2017
- **IEEE RAS Travel Award** August 2016
- **Ericsson Graduate Fellowship** 2015 - 2016
- **Jonsson Scholarship** 2014 - 2015
- **Achievement Award, University of Florida, (Declined)** Fall 2014
Mech & Aerospace Engineering Dept.
- **PTDF Overseas Scholarship Award [Nigeria]** ~1.7% acceptance, 2011 - 2012
- **Federal Government (of Nigeria) Scholarship,** ~3.6% acceptance, 2002
- **Ondo State (Nigeria) Scholarship** ~10% acceptance, 2004