

Joshua R. Bhagat Smith

PHD STUDENT · ROBOTICS & ARTIFICIAL INTELLIGENCE

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Education

Oregon State University

PHD ROBOTICS AND ARTIFICIAL INTELLIGENCE

- Advisor: Dr. Julie A. Adams

Corvallis, OR

2020 - present

University of Arkansas

MS COMPUTER SCIENCE

- Advisor: Dr. Michael Gashler

Fayetteville, AR

2015 - 2017

University of Arkansas

BS COMPUTER ENGINEERING

- Minors in Math, Physics

Fayetteville, AR

2011 - 2015

Professional Experience

2020- **Graduate Research Assistant**, Robotics, Oregon State University

2017-2020 **Senior Software Engineer**, HERE Technologies

2015-2017 **Graduate Teaching Assistant**, CSCE, University of Arkansas

2016 **Research Intern**, NASA Langley

Publications

PUBLISHED

A. Moore, M. Schubert, T. Fang, **J. Smith**, N. Rymer. "Lidar-derived navigational geofences for low altitude flight operations," in *Proc. AIAA AVIATION FORUM Virtual Event*. 2020.

A. Moore, M. Schubert, S. Balachandran, M. Consiglio, C. Munoz, **J. Smith**, D. Lewis, P. Schneide. "Inspection of electrical transmission structures with UAV path conformance and lidar-based geofences," in *Proc. of IEEE Power & Energy Society Innovative Smart Grid Technologies Conference (ISGT) Singapore*. 2018.

J. Smith, M. Gashler. "An investigation of how neural networks learn from the experiences of peers through periodic weight averaging," in *Proc. IEEE International Conference on Machine Learning and Applications (ICMLA) Cancun, Mexico*. 2017.

IN SUBMISSION

J. Bhagat Smith, P. Baskaran, J.A. Adams. "Decomposing Physical Workload Estimation for Human-Robot Teams" in *Proc. IEEE International Conference on Human-Machine Systems*, 2022.

P. Baskaran, , **J. Bhagat Smith**, J.A. Adams. "Visual Task Recognition for Human-Robot Teams" in *Proc. IEEE International Conference on Human-Machine Systems*, 2022.

J. Bhagat Smith, P. Baskaran, J.A. Adams. "Influence of honeybee inspired drifter agents." *PloS one*, 2022.

IN PREPARATION

J. Bhagat Smith, P. Baskaran, J.A. Adams. "Guard agents and their impact on collective decision making."

Teaching Experience

Spring 2017 **Artificial Intelligence**, Teaching Assistant
Fall 2016 **Programming Foundations I**, Teaching Assistant
Spring 2016 **Computer Organization**, Teaching Assistant
Fall 2015 **Programming Foundations I**, Teaching Assistant

Research Experience

Oregon State University - Robotics

Corvallis, OR

ADVISOR: DR. JULIE A. ADAMS

Fall. 2020 - Present

- Dissertation: "Adaptive Workload Estimation using Few-Shot Learning"
- Project: "DARPA Resilient Emergent Properties for Autonomous Agent Interactions (REPAIR)"
- Project: "Managing Bio-Inspired Collectives"

University of Arkansas - Computer Science

Fayetteville, AR

ADVISORS: DR. MICHAEL GASHLER

2015-2017

- Thesis: "An investigation of how neural networks learn from the experiences of peers through periodic weight averaging."

NASA Langley

Hampton, VA

ADVISORS: DR. ANDREW MOORE

2016

- Project: "Extracting Lidar-based Geofences for UAV Inspection of Electrical Transmission Structures"

Mentoring

2022 **Simone Angelo S. Toribio**, REU Mentor, Oregon State University