Andrew Dobson

CTO, and Robot Software Developer

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EMPLOYMENT

Chief Technical Officer, Airlitix   Fall 2018 - present
- <u>Software Development:</u> Working with a multi-disciplinary team of engineers, multi-process software stack for automated drone monitoring in a greenhouse environment.
- <u>Customer Outreach:</u> Presentations to potential customers, describing system capabilities to greenhouse managers and assessing customer needs.

Postdoctoral Researcher, University of Michigan   Fall 2017 - Fall 2018
- <u>Student Mentoring:</u> Advised Master's and Ph.D. students, resulting in paper submissions.

Research Assistant, Rutgers, the State University of New Jersey   Fall 2012 - Fall 2017
- <u>Research Manuscripts:</u> Published 15 peer-reviewed papers, orally presenting results at multiple conferences. Self-funded majority of Ph.D. study via a DHS Fellowship.
- <u>External Collaboriation:</u> Co-developed crowd flow simulation of the PANYNJ Bus Terminal, directly working with PANYNJ. Collaborative publications with external universities.
- <u>Multi-disciplinary Robotics Research:</u> Working with a team of 8-9 engineers to develop a large-scale physics-based simulation environment. Competed in the Amazon Picking Challenge using an industrial manipulator, where our team placed 7th of 28 teams.

EDUCATION

Ph.D. in Robotics, Rutgers, the State University of New Jersey   Fall 2012 - Fall 2017
M.S. in Computer Science, University of Nevada, Reno   Fall 2010 - Fall 2012
B.S. in Computer Science, University of Nevada, Reno   Fall 2006 - Fall 2010

TECHNICAL SKILLS & CONTRIBUTIONS

Programming Languages	C++, Ruby, Python, R.
Software Proficiencies	Robot Operating System (ROS), C++ Boost and STL Libraries, CMake, Catkin, git, Mercurial, SVN, LaTeX, GSuite Administration, QT Creator, MS Word, MS Excel, MS Powerpoint.
Software Contributions	PRACSYS simulator, Open Motion Planning Library (OMPL).
Research Publications	15 peer-reviewed publications, 8 of which are first-author papers.
Teaching	Senior-level AI (instructor), Discrete Math and AI (teaching assistant), invited talks at graduate seminars.