Dylan Jones

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RESEARCH INTERESTS

probabilistic robotic, mobile robotics, marine robotics, path planning, control, machine learning, optimization

EDUCATION

OREGON STATE UNIVERSITY | PhD in Robotics

Expected May 2020 | Corvallis, OR
Advised by Geoff Hollinger

TUFTS UNIVERSITY | BS in Mechanical Engineering

May 2015 | Medford, MA
Dean's List (All Semesters)
Graduated Summa Cum Laude

RESEARCH

ROBOTICS DECISION MAKING LAB | Doctoral Research Assistant

Sep 2015 – Present | Corvallis, OR
Worked with Geoff Hollinger on optimization path planning for marine vehicle in strong disturbances. Additionally, currently working on methods for combining path planning and control to improve path realizability.

EXPERIENCE

OREGON STATE UNIVERSITY | Graduate Teaching Assistant

Sep 2015 - March 2016 | ME 430 - System Dynamics and Control | Corvallis, OR

- Implemented a new grading system using Gradescope
- Mentored students for their final project

TUFTS COMPUTER SCIENCE DEPARTMENT | Computer Science Teaching Assistant

Sep 2013 – May 2015 | Medford, MA

- Taught students C++ and computer science concepts
- Evaluated and graded homework for functionality
- Designed and wrote homework, labs and projects to increase learning for students

NEW ENGLAND HYDROPOWER COMPANY | Intern + Site Designer

June 2013 - Sep 2013 + Aug 2014 - Apr 2015 | Beverly, MA

- Created a parametrized model of the Archimedes Screw Technology, using AutoCAD Inventor, that was then used to quickly create models of potential sites using collected data
- Interacted with both clients and government agencies to obtain needed information on potential installation sites
- Introduced new technologies into the workflow to decrease turnaround times and ensure accurate data acquisition

PACHYDERM CREATIONS LLC | Data Manager and Developer

Sep 2011 – May 2015 | Portland, OR

- Managed data and created visually aesthetic workbooks and usable user interface forms using Microsoft Excel
- Wrote a web scraper application which stored its results in a MySQL database

PARKER CHOMERICS | Intern

Jun 2014 – Aug 2014 | Woburn, MA

- Tested materials for physical and EMI shielding properties using ASTM standards
- Designed and tested processing parameters and procedures for extrusion machinery on a manufacturing floor
- Analyzed production processes using Six Sigma tools

AWARDS

- 2016 - NSF GRFP Honorable Mention
- 2015 - O'Leary Design Award for Top Senior Design Project
- 2014 - Daniel V. Byrne, E76, Endowed Scholarship
- 2013 - Daniel V. Byrne, E76, Endowed Scholarship
- 2012 - Frank T. Lewis Scholarship

PUBLICATIONS

Journal Articles

1. Y. Ye, L. He, Z. Wang, **D. Jones** , G. Hollinger, M. Taylor, and Q. Zhang, "Orchard manoeuvring strategy for a robotic bin-handling machine," *Biosystems Engineering* , vol. 169, pp. 85-103, May 2018
2. **D. Jones** and G. Hollinger, "Planning energy-efficient trajectories in strong disturbances," *IEEE Robotics and Automation Letters* , vol. 2, no. 4, pp. 2080-2087, Oct. 2017
3. Y. Ye, Z. Wang, **D. Jones** , L. He, M. Taylor, G. Hollinger, and Q. Zhang, "Bin-dog: A robotic platform for bin management in orchards," *Robotics* , vol. 6, no. 2, article 12, May 2017

Conference Papers

1. **D. Jones** , M. Kuhlman, D. Sofge, S. Gupta, and G. Hollinger, "Stochastic optimization for autonomous vehicles with limited control authority," in *Proc. IEEE/RSJ International Conference on Intelligent Robots and Systems* (IROS), Madrid, Spain, Oct. 2018, to appear
2. N. Lawrance, T. Somers, **D. Jones** , S. McCammon and G. Hollinger, "Ocean deployment and testing of a semi-autonomous underwater vehicle," in *Proc. IEEE/MTS OCEANS Conference* , Monterey, CA, Sept. 2016

Workshop Papers

1. **D. Jones** and G. Hollinger, "Real-time stochastic optimization for energy-efficient trajectories," in *Proc. Robotics: Science and Systems Conference Workshop on Robot-Environment Interaction for Perception and Manipulation* (RSS), Ann Arbor, MI, June 2016
2. N. Lawrance, T. Somers, **D. Jones** , S. McCammon and G. Hollinger, "Ocean deployment and testing of a semi-autonomous underwater vehicle," in *Proc. IEEE International Conference on Robotics and Automation Workshop on Marine Robot Localization and Navigation* (ICRA), Stockholm, Sweden, May 2016

LEADERSHIP / VOLUNTEER EXPERIENCE

2018	Safety Inspector / Design Judge for Oregon Regional MATE ROV Competition
2016-2018	Tufts Admission Interviewer
2014-2015	Tufts Tau Beta Pi secretary
2014-2015	Tufts Engineering Mentors founding member
2014	Tufts Club Soccer Team Captain
2013-2015	Tufts Board Game Club treasurer and founding member