# W. Cannon Lewis II

Last updated October 24, 2018

Rice University wcannon@rice.edu PhD Student, Department of Computer Science www.cannontwo.com 6100 Main Street Houston, Texas 77005 Education Rice University PhD, Computer Science, — B.S., Computer Science, May 2018 GPA: 3.97 GPA: 3.91 B.A., Mathematics, May 2018 Research Army Research Laboratory, Adelphi, Maryland 2018 Summer Journeyman Fellow Project: Robust Mission Planning through Behavior Trees • Designed mission planner based on behavior trees. • Implemented mission planner for large robotic system. Kavraki Lab, Rice University, Houston, Texas 2017-2018 Undergraduate Research Assistant Project: Hidden Constraints in Robotic Reinforcement Learning • Investigated Deep RL applied to robotic manipulators. • Found that current methods do not scale. Project: Multi-Robot Task and Motion Planning • Researched task-and-motion planning for two robots. • Used TMKit to plan for two UR5 manipulators. Wah Chiu Lab, Baylor College of Medicine, Houston, Texas 2015 CPRIT Undergraduate Fellow Project: Computational Filtering of Cryo-Electron Tomograms • Improved NAD filtering of cryo-EM tomograms. • Labeled and processed tomograms of huntintin protein. Teaching Rice University, Computer Science Teaching Assistant, Algorithmic Robotics 2017 Teaching Assistant, Functional Programming 2016 Teaching Assistant, Algorithmic Thinking 2016 Rice University, Mathematics Teaching Assistant, Linear Algebra 2016 Teaching Assistant, Honors Multivariable Calculus IV 2016 Teaching Assistant, Honors Multivariable Calculus III 2015

Awards	K2I Computational Science and Engineering Fellowship	2018
	Army Research Lab Summer Journeyman Fellowship	2018
	Rice Engineering Alumni Distinguished Research Excellence Award	2018
	Rice Engineering Alumni Senior Merit Award in Computer Science	2018
	Rice Undergraduate Research Symposium Excellence in Research	2018
	Rice Undergraduate Scholars Program	2017
	Excellence in Collegiate Journalism - Critical Review	2016/2017
	CPRIT Undergraduate Research Fellowship	2015
	Rice University President's Honor Roll	2014 – 2018

### Activities Fa

# Fall 2018

Rice Machine Learning Lunch Coordinator Rice Graduate Student Association Media Committee Member Host of Rice Computer Science Department podcast

#### Spring 2018

Yates High School FIRST Robotics Mentor

#### Fall 2017

Rice Undergraduate Research Symposium Think Tank member Co-reviewer for ICRA 2018 with Lydia Kavraki

### Interning

## Rice IT Department, Houston, Texas – Student Consultant

2015-2017

- Assisted students and faculty with computer repairs.
- Consulted on common computer problems and purchases.

Two Sigma, New York, New York – Software Engineering Intern

2016

- Worked as a software engineer for statistical modelers.
- Implemented distributed NLP techniques for Elasticsearch.

Rackspace, San Antonio, Texas – Software Development Intern

2012 - 2013

- Migrated internal Ruby on Rails 2 apps to Rails 3.
- Built internal campus map in Python and HTML/CSS.
- Rewrote billing software to use Java actor-based parallelism.

# Papers

1) W. C. Lewis, M. Moll, and L. Kavraki. Unstated assumptions of benchmark specifications limit deep robotic reinforcement learning. 2019 IEEE International Conference on Robotics and Automation. Under Review.