Michael O'Neill

EDUCATION	**University of Wisconsin-Madison**, Madison, WI

University of Wisconsin-Madison, Madison, WI

Ph.D., Compter Sciences, *Expected:* August, 2020
- Advisor: Stephen J. Wright, Ph.D

M.S., Computer Sciences, 2016

Rensselaer Polytechnic Institute, Troy, NY

B.S., Computer Science and Mathematics (Dual Major), 2014

RESEARCH EXPERIENCE

Research Assistant June 2015 to present
Computer Sciences Department,
University of Wisconsin - Madison
Supervisor: Stephen J. Wright, Ph.D

Undergraduate Researcher September 2013 to May 2014
Mathematics Department,
Rensselaer Polytechnic Institute
Supervisor: Kristin P. Bennett, Ph.D

REFEREED JOURNAL PUBLICATIONS

1. **O'Neill, Michael** and Wright, Stephen J. "Behavior of Accelerated Gradient Methods Near Critical Points of Nonconvex Functions", *Mathematical Programming B*, 2018.

2. Royer, Clément W., **O'Neill, Michael** and Wright, Stephen J. "A Newton-CG Algorithm with Complexity Guarantees for Smooth Unconstrained Optimization", *Mathematical Programming*, 2019.

3. **O'Neill, Michael** and Wright, Stephen J. "A Log-Barrier Newton-CG Method for Bound Constrained Optimization with Complexity Guarantees", *IMA Journal of Numerical Analysis, 2020.*

PREPRINT PUBLICATIONS

1. **O'Neill, Michael** and Wright, Stephen J. "A Line-Search Descent Algorithm for Strict Saddle Functions with Complexity Guarantees", 2020. Submitted to *IMCL 2020 Workshop: Beyond First Order Methods in Machine Learning.*

TEACHING EXPERIENCE

Lecturer Spring 2020
CS 368 - Learning a Programming Language (MATLAB)
Department of Computer Sciences,
University of Wisconsin - Madison

Teaching Assistant Fall 2014 to Spring 2015
CS 537 - Introduction to Operating Systems
Department of Computer Sciences,
University of Wisconsin - Madison

Teaching Assistant Fall 2014
CS 302 - Introduction to Programming
Department of Computer Sciences,
University of Wisconsin - Madison

AWARDS

Student Awards — University of Wisconsin, Department of Computer Sciences
- Summer Research Assistant Scholarship May 2015

INVITED TALKS	• American Mathematical Society Fall Central Sectional Meeting, Madison, WI	Sep 2019
	• INFORMS Annual Meeting, Seattle, WA	Oct 2019
	• INFORMS Optimization Society Conference, Greenville, SC Mar 2020 (Postponed)	

SERVICE	Computer Sciences Welcome Weekend Committee	2016 to 2018
	• Chair of the committee in 2017	