

# SCOTT EMMONS

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## EDUCATION

### University of California, Berkeley

PhD, *Department of Electrical Engineering and Computer Sciences*.  
Advised by Stuart Russell.

August 2019 - Present

### University of North Carolina at Chapel Hill

BS, *Mathematics* and BA, *Computer Science*.  
Highest Honors for Thesis in Mathematics.

August 2015 - May 2019

## AWARDS AND HONORS

### Department of Energy Computational Science Graduate Fellowship (\$300,000)

2019 - Present

- Supports 4 years of graduate study for 20 U.S. students per year researching high-performance computing.

### Robertson Scholars Leadership Program (\$250,000)

2015 - 2019

- Highly selective undergraduate merit scholarship providing unique “dual citizenship” at UNC and Duke.

### Goldwater Scholar (\$15,000)

2017 - 2019

- Awarded to 300 students in the U.S. per year for natural sciences, mathematics, and engineering research.

### Archibald Henderson Medal

2019

- A gold medal, UNC’s top undergraduate mathematics prize, given to 1 student per year.

## RESEARCH PUBLICATIONS

### Peer-Reviewed Publications

- Xin Chen\*, Sam Toyer\*, Cody Wild\*, **Scott Emmons**, Ian Fischer, Kuang-Huei Lee, Neel Alex, Steven H. Wang, Ping Luo, Stuart Russell, Pieter Abbeel, & Rohin Shah: “An Empirical Investigation of Representation Learning for Imitation.” *Neural Information Processing Systems (NeurIPS)*, 2021.
- **Scott Emmons**, Caspar Oesterheld, Andrew Critch, & Vince Conitzer: “Symmetry, Equilibria, and Robustness in Common-Payoff Games.” *Games, Agents, and Incentives Workshop*, 2021.
- **Scott Emmons**\*, Ajay Jain\*, Michael Laskin\*, Thanard Kurutach, Pieter Abbeel, & Deepak Pathak: “Sparse Graphical Memory for Robust Planning.” *Neural Information Processing Systems (NeurIPS)*, 2020.
- Eun Lee, **Scott Emmons**, Ryan Gibson, James Moody, & Peter J. Mucha: “Concurrency and Reachability in Treelike Temporal Networks.” *Physical Review E*, 2019.
- **Scott Emmons** & Peter J. Mucha: “A Map Equation with Metadata: Varying the Role of Attributes in Community Detection.” *Physical Review E*, 2019.
- Kris Hauser & **Scott Emmons**: “Global Redundancy Resolution via Continuous Pseudoinversion of the Forward Kinematic Map.” *IEEE Transactions on Automation Science and Engineering*, 2018.
- **Scott Emmons**, Robert Light, & Katy Börner: “MOOC Visual Analytics: Empowering Students, Teachers, Researchers, and Platform Developers of Massively Open Online Courses.” *Journal of the Association for Information Science and Technology (JASIST)*, 2017.
- William H. Weir, **Scott Emmons**, Ryan Gibson, Dane Taylor, & Peter J. Mucha: “Post-Processing Partitions to Identify Domains of Modularity Optimization.” *Algorithms*, 2017.
- **Scott Emmons**, Mike Gallant, Stephen Kobourov, & Katy Börner: “Analysis of Network Clustering Algorithms and Cluster Quality Metrics at Scale.” *PLoS ONE*, 2016.

**TEACHING AND SERVICE****Empower: Educate & Inspire**

Chapel Hill, NC

*Cofounder*

June 2017 - January 2020

- Developing curriculum used in classrooms for over 200 high school students to identify their values, learn about global issues, recognize their strengths, and make a social impact.

**Shanti Bhavan Children's Project**

Tamil Nadu, India

*Volunteer Teacher*

July 2017 - August 2017

- Taught approximately 80 primary and secondary school students from families who make less than \$2 / day in subjects ranging from English literature to physics to help eliminate the cycle of poverty.

**Sunflower County Freedom Project**

Sunflower, MS

*Volunteer Teacher*

May 2016 - July 2016

- Developed standard-aligned 8<sup>th</sup>- and 9<sup>th</sup>-grade math curriculum and taught it to two math classes that saw an average increase in performance of 9% on state standard test.

**Life Skills Academy**

Bloomington, IN

*Cofounder*

January 2014 - May 2015

- Negotiated terms with school principal to run program 3 times a week during the school day and help students at risk of failing to pass core, academic classes required to earn a high school diploma.

**Information Visualization Massively Open Online Course**

Bloomington, IN

*Student Liaison*

Spring 2014, Spring 2015

- Facilitated online discussion and reviewed student-facing materials for nearly 2,000 enrolled students from over 50 different countries to ensure that online course maintained the high quality of a university class.