

Travis L Scholten

Website LinkedIn Twitter Email Github

EDUCATION

University of New Mexico

PH D PHYSICS

2012 August - 2018 September

MS PHYSICS

2015 June

California Institute of Technology

BS PHYSICS

2008 August - 2012 June

ASSOCIATIONS

2019-present: IEEE

2015-present: American Physical Society

OTHER EXPERIENCE

2020: Advisory board member, Unitary Fund

2017: Organizer, CQuIC Computing Workshop

2016-17: Vice-Chair, GPSA Finance Committee

2015-17: GPSA Council Representative, Physics and Astronomy

SKILLS

Programming

Python • numpy • pandas
git • Jupyter notebook •
seaborn • data visualization

Soft

Academic conference presentations
Invited speaker IQT 2019

AWARDS

2017: Brian E Colón Exemplary Service Award: UNM GPSA

2016: Excellence in Ethics Award
UNM GPSA

2015: Student Research Grant
UNM GPSA

2014: Student Research Grant
UNM GPSA

EXPERIENCE

IBM Quantum | Quantum Computing Applications Researcher

2018 October - present | Yorktown Heights, NY

Identify and execute on opportunities for collaboration with IBM Q Network startups, and support IBM Quantum's business development team.

- Presented 20+ technical talks on quantum computing talks to C-suite and technical audience
- Built and maintain Airtable database of IBM Q Network research papers
- Assist business development team in use case/application discussions
- Completed 1 research project with IBM Q Network startup
- Defined technical interview questionnaire for IBM Q Startup program
- Lead organizer of IBM Quantum involvement in 2020 IEEE Quantum Week (20+ people)
- Organized team's bi-weekly journal club

Sandia National Laboratories | Student Intern

2013 May - 2018 September | Albuquerque, NM

PhD research in quantum characterization, verification, and validation specializing in model selection, hypothesis testing, and machine learning techniques.

- Developed Python code base for research and data analysis & used a high-performance computing cluster.
- Presented multiple conference talks (10+) and posters (3)
- Participated in graduate student association legislature as a member, and became Finance Council Vice-Chair
- Organized computing workshop for research group

University of New Mexico | Teaching Assistant, Physics and Astronomy

2012 August - 2013 May | Albuquerque, NM

Taught undergraduate labs and helped with a graduate level course.

California Institute of Technology | Summer Undergraduate Research Fellow

2011 June - 2011 September | Pasadena, CA

Research project on adiabatic quantum computation.

- Wrote Matlab code for numerical simulations
- Advanced to final round of the annual Peripall speaking competition

PUBLICATIONS

- [1] Daniel Mills, Seyon Sivarajah, Travis L Scholten, and Ross Duncan. Application-Motivated, Holistic Benchmarking of a Full Quantum Computing Stack. *arXiv*, 2006.01273, 2020.
- [2] Erik Nielsen, John King Gamble, Kenneth Rudinger, Travis L Scholten, Kevin Young, and Robin Blume-Kohout. Gate Set Tomography. *arXiv*, 2009.07301, 2020.
- [3] Travis L Scholten and Robin Blume-Kohout. Behavior of the maximum likelihood in quantum state tomography. *New Journal of Physics*, 20(023050), 2018.
- [4] Travis L Scholten, Yi-Kai Liu, Kevin Young, and Robin Blume-Kohout. Classifying single-qubit noise using machine learning. *arXiv*, 1908.11762, 2019.