

Travis L Scholten

<http://travisscholten.com> travisscholten@pm.me

EDUCATION

University of New Mexico

PH D PHYSICS

August 2012 - September 2018

MS IN PHYSICS

June 2015

California Institute of Technology

BS PHYSICS

August 2008 - June 2012

LINKS

Github: [Travis-S](#)

LinkedIn: [Travis Scholten](#)

Twitter: [@Travis_Sch](#)

SKILLS

Programming

Expert:

Python • Numpy • pandas

Intermediate:

git • Jupyter notebook •

seaborn • data visualization

Basic:

Bash • HTML

RECENT 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

OTHER EXPERIENCE

2017: Organizer, CQuIC Computing
Workshop

2016-17: Vice-Chair, GPSA Finance
Committee

2015-17: GPSA Council Representative,
Physics and Astronomy

EXPERIENCE

IBM Q | QUANTUM COMPUTING APPLICATIONS RESEARCHER

October 2018 - present | Yorktown Heights, NY

I work with startups in the IBM Q Network to do joint research and development and other technical projects. This includes exploring applications of near-term quantum devices, and helping integrating/interfacing software into our Qiskit programming stack.

Sandia National Laboratories | STUDENT INTERN

May 2013 - September 2018 | Albuquerque, NM

Engaged in self-directed and collaborative work with colleagues for my PhD research in quantum characterization, verification, and validation. My research specialized in model selection, hypothesis testing, and machine learning techniques for characterizing quantum hardware.

- Developed from scratch a 1300-line Python code base for scientific computation, as well as Jupyter notebooks for data analysis and visualization
- Learned to use a high-performance computing cluster, including code parallelization techniques
- Presented multiple conference talks and posters about my work

University of New Mexico | TEACHING ASSISTANT

August 2012 - May 2013 | Albuquerque, NM

Taught undergraduate labs and helped with a graduate level course.

- Wrote personal lecture notes, graded homework assignments, and held office hours

California Institute of Technology | SUMMER UNDERGRADUATE RESEARCH FELLOW

June 2011 - September 2011 | Pasadena, CA

Developed research skills and techniques during a summer project to understand the computational efficiency of a particular adiabatic quantum computation.

- Wrote Matlab code for numerical simulations
- Presented my research at the annual Perpall speaking competition, where I advanced to the final round

PUBLICATIONS

- [1] Travis L Scholten and Robin Blume-Kohout. Behavior of the maximum likelihood in quantum state tomography. New J. Phys. 20 023050.