lucassaldyt@gmail.com 505-506-1245

 $\begin{array}{c} \text{http://github.com/LSaldyt} \\ \text{Mesa, Arizona} \end{array}$

Education

Barrett, The Honors College. Arizona State University

Tempe, Arizona

Bachelors of Computer Science, GPA: (3.7)

Sep. 2017 - Current

MIT Open Courseware

Online

Important Supplementary Courses:

Data Structures and Algorithms (Demaine), Quantum Algorithmic Complexity (Aaronson),
 Quantum Mechanics (Zwiebach), Artificial Intelligence (Winston), Artificial General
 Intelligence (Fridman), Society of Mind (Minsky), Information Theory (Lloyd)

Experience

NASA (National Aeronautics and Space Administration)

Cape Canaveral, Florida

Software Engineering Intern

Jun. 2019 - Aug 2019

- $-\,$ Benchmarked and optimized safety-critical live validation system for Launch Control System
- Published abstract documenting software improvements made during the summer

Sandia National Laboratories (Dr.Erik Nielsen)

Albuquerque, New Mexico

Quantum Computation Intern

Jun. 2015 - Sep. 2018

- Developed high-fidelity quantum benchmarking (Gate Set Tomography) software
- Created a distributed high-performance simulation, verification, and data analysis software
- Assisted in publishing papers in Quantum Benchmarking

Los Alamos National Laboratories (Dr.Scott Pakin)

Albuquerque, New Mexico

Quantum Computation Intern (Shadow)

April 2017

- Benchmarking the knapsack problem on LANL's DWave annealer and IBM's 5-qubit universal-gate quantum computer
- ASU Complex Systems Research (Dr. Yun Kang)

Tempe, Arizona

Mathematics Intern

Oct. 2018 - Current

- Math and computer modeling of ant nest choice and alarm propagration
- Author of a computation biology paper on alarm propagation, published in PNAS

Fulton Undergraduate Research Initiative (Dr. Ajay Bansal)

Tempe, Arizona

Machine Learning Researcher

Sep. 2018 - June 2019

- Continuating development of the Qurry quantum programming language and related statistical machine learning research

The Fluid Analogies Research Group (Dr. Alexandre Linhares)

Remote (paid)

- Cognitive Science Intern
 - Revitalization of Douglas Hofstadter's "copycat" cognitive model
 Statistical analysis and comparison of various models to human data
- Unitary Fund

Remote (paid)

Quantum Software Researcher

Jun. 2018 - Current

Oct. 2016 - Sep. 2018

- Prototyping of a quantum programming language, called "Qurry"
- Presentation in Brussels, Belgium at the FOSDEM Quantum Computing Conference

Skills

Programming Languages: Python, C++, Java, Clojure, Haskell (and many others)

Operating Systems: Linux, MacOS X, Windows

Applications: Vim, LATEX, Jupyter Notebook, MatLab, Autodesk Design