# Lucas Saldyt

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http://github.com/LSaldyt Mesa, Arizona

#### 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

Albuquerque, New Mexico

 $Quantum\ Computation\ Intern$ 

Jun. 2015 - Sep. 2018 (3 Summers)

- 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
- Dr. Carlos Castillo-Chavez's Complex Systems Research Group

Tempe, Arizona Oct. 2018 - Current

Mathematics Intern

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

## Los Alamos National Laboratories

Albuquerque, New Mexico

Quantum Computation Intern (Shadow)

April 2017

- Benchmarking the knapsack problem on LANL's DWave and IBM's 5-qubit machine
- Fulton Undergraduate Research Initiative (Under Dr. Ajay Bansal) Tempe, Arizona Machine Learning Researcher Sep. 2018 - Current
  - Continuating development of the Qurry quantum programming language and related statistical machine learning research

### The Fluid Analogies Research Group

Remote (paid)

Cognitive Science Intern

Oct. 2016 - Sep. 2018

- 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

- 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