

# Lucas Saldyt

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

## Education

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- **Arizona State University: Barrett, The Honors College** Tempe, Arizona  
*Bachelor of Science in Computer Science, GPA: 3.7* Sep. 2017 - Current
- **MIT Open Courseware** Online  
*Quantum Computation, AI, and CS courses*

## Experience

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- **National Aeronautics and Space Administration** Cape Canaveral, Florida  
*Software Engineering Intern* Jun. 2019 - Aug. 2019
  - Worked on class A, safety-critical, human rated spaceflight ground control software by participating in the full software development lifecycle and using agile processes
  - Created, benchmarked, and optimized verification/validation software for launch control tests
  - Independently prototyped original display profile saving system for launch control engineers
- **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 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 Shadow* Apr. 2017
  - Benchmarked the knapsack problem on LANL's DWave annealer and IBM's machines
- **ASU Complex Systems Research (Dr. Yun Kang)** Tempe, Arizona  
*Mathematics Research Assistant* Oct. 2018 - Current
  - Unique math/computer modeling and visualization of ant nest choice and alarm propagation
  - 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 - Jun. 2019
  - Developed Qurry, a quantum programming language
  - Machine learning research, focused around Kolmogorov complexity and program learning
- **The Fluid Analogies Research Group (Dr. Alexandre Linhares)** Remote (paid)  
*Cognitive Science Research Assistant* Oct. 2016 - Sep. 2018
  - Revitalized of Douglas Hofstadter's "copycat" cognitive model
  - Statistical analysis/visualization 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"
  - Presented in Brussels, Belgium at the FOSDEM Quantum Computing Conference

## Skills

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**Programming Languages:** Python, C++, Java, Bash, Clojure (LISPs), Haskell, C, MATLAB, R, Fortran

**Applications:** Vim, L<sup>A</sup>T<sub>E</sub>X, Git, MPI, Supercomputing (Slurm), Jupyter Notebook, Autodesk Design

**Operating Systems:** Linux, MacOS X, Windows

**Natural Languages:** English, Ukrainian, Spanish