

Lucas Saldyt

lucassaldyt@gmail.com
505-506-1245

<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
Supplementary Courses: assignments at github.com/LSaldyt Ongoing
 - Data Structures and Algorithms, Quantum Algorithmic Complexity, Quantum Mechanics, Artificial Intelligence (Winston), Artificial General Intelligence (Fridman), Society of Mind, Computer Security, Information Theory

Experience

- **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
 - Oversaw porting entire codebase (over 1 million lines) to Python3.x
- **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
- **Dr. Carlos Castillo-Chavez's Complex Systems Research Group** Tempe, Arizona
Mathematics Intern Oct. 2018 - Current
 - Math and computer modeling of ant nest choice and alarm propagation
- **Unitary Fund** Remote (paid)
Quantum Software Researcher Jun. 2018 - Current
 - Prototyping of a quantum programming language, called "Curry"
 - Presentation in Brussels, Belgium at the FOSDEM Quantum Computing Conference
- **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

Skills

Programming Languages: Python, C++, Clojure, Java, Haskell

Operating Systems: Linux (Arch, Redhat, Ubuntu), MacOS X, Windows

Applications: Vim, L^AT_EX, Jupyter Notebook, MatLab, Autodesk design, Office suites

Libraries: tensorflow, pandas, seaborn, numpy, scikit learn

Natural Languages: English, Ukranian, Spanish

Projects

- **pyGSTi** <https://github.com/pyGSTio/pyGSTi>
Sandia National Labs 2015 - Current
 - Quantum Gate Set Tomography in Python. I am the second highest contributor with over 700 commits
- **Curry** <https://github.com/LSaldyt/curry>
Unitary Fund 2018 - Current
 - A quantum programming language built ontop of Rigetti pyquil. I lead the project, organizing a small team of software developers through the github issues and project system
- **Vorpai** <https://github.com/LSaldyt/vorpai>
Independent Dec. 2017
 - A research and collaboration website, written in Clojure
- **Nova** <https://github.com/LSaldyt/nova>
Independent Oct. 2017
 - An Alexa-like assistant on Linux
- **Cryptometric** <https://github.com/LSaldyt/cryptometric>
Independent Oct. 2017
 - A server app that sends cryptocurrency statistics to a mobile phone by text

Awards

ASU New American University Scholarship (\$14,000 annually)	2017
ASU Discovery Fellowship (\$5,000)	2019
Fluid Analogies Research Grant (\$5,000)	2017
FURI Research Grant (\$3,000)	2017
Unitary Fund Research Grant (\$2,200)	2018

Interests

Academic: Quantum Computing, Cognitive Science, Artificial Intelligence, Computer Science, Mathematics, Software Engineering

Sports: Okinawan Karate

Musical: Playing classical guitar and piano, composing music

Other: Writing novels (I have completed two, as well as some short stories and poetry)