

Education

- **Barrett, The Honors College. Arizona State University** Tempe, Arizona
Bachelors of Computer Science, GPA: (3.7) Sep. 2017 - Current
 - Relevant courses: Data Structures and Algorithms, Theoretical Computer Science, Software Engineering, Complex Adaptive Systems, Mathematical Structures (Proofs), Linear Algebra, Statistics for Engineers, Differential Equations, Calculus 1-3, Human Systems Engineering
- **MIT Open Courseware** Online
Supplementary Courses: work at github.com/LSaldyt Ongoing
 - Relevant courses: Data Structures and Algorithms, Quantum Algorithmic Complexity, Quantum Mechanics, Artificial Intelligence (Winston), Artificial General Intelligence (Fridman), Society of Mind, Computer Security, Information Theory

Work Experience

- **Sandia National Laboratories** Albuquerque, New Mexico
Quantum Computation Intern June 2015 - September 2018 (3 Summers)
 - Development of high-fidelity quantum benchmarking software, known as “Gate Set Tomography”
 - Created a distributed high-performance simulation and verification software
 - Created a data analysis library for quantum computer performance
 - Ported entire codebase (over 1 million lines) to Python3.x
- **The Fluid Analogies Research Group**
Cognitive Science Intern October 2016 - September 2018 (2 years)
 - Revitalization of Douglas Hofstadter’s “copycat” cognitive model
 - Statistical analysis and comparison of models to human data across several cognitive science domains
 - Creation of criteria for psychological plausibility of a model
- **Dr. Carlos Castillo-Chavez’s Complex Systems Research Group** Tempe, Arizona
Mathematics Intern October 2018 - Current
 - Math and Computer modeling of Stephen Pratt’s ant nest choice model
 - Modeling and data analysis of ant alarm behavior
- **Unitary Fund**
Quantum Software Researcher Jun. 2018 - Current
 - Prototyping of a quantum programming language, called “curry”
 - Presentation in Brussels, Belgium at the FOSDEM Quantum Computing Conference
- **Fulton Undergraduate Research Initiative (Under Dr. Ajay Bansal)** Tempe, Arizona
Machine Learning Researcher Sep. 2018 - Current
 - Analysis of Kolmogorov complexity with respect to machine learning

- **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
 - Development and comparison of quantum programming interfaces

Projects

- **Vorpai** <https://github.com/LSaldyt/vorpai>
Independent *December 2017*
 - A research and collaboration website, written in Clojure
- **Nova** <https://github.com/LSaldyt/nova>
Independent *October 2017*
 - An Alexa-like assistant on Linux
- **Cryptometric** <https://github.com/LSaldyt/cryptometric>
Independent *October 2017*
 - A server app that sends cryptocurrency statistics to a mobile phone by text

Recent 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

Skills

Fluent 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, OpenOffice, MS Office, Google Office

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

Natural Languages: English, Ukrainian, Spanish

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)