

## 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* 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** Remote (Paid)  
*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** 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
- **Fulton Undergraduate Research Initiative (Under Dr. Ajay Bansal)** Tempe, Arizona  
*Student 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<sup>A</sup>T<sub>E</sub>X, 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)