Lucas Saldyt
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http://github.com/LSaldyt

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**
  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 psychologica 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

- **Vorpal** https://github.com/LSaldyt/vorpal
  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, LaTeX, Jupyter Notebook, MatLab, Autodesk design, OpenOffice, MS Office, Google Office

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

Natural Languages: English, Ukranian, 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)