Lucas Saldyt

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Education

Arizona State University: Barrett, The Honors College — Tempe, Arizona
Bachelor of Science in Computer Science, GPA: 3.7 — *Sep. 2017 - May 2021*

Experience

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

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

Applications: Vim, LaTeX, Git, MPI, Supercomputing (Slurm), Jupyter Notebook, Autodesk Design

Operating Systems: Linux, MacOS X, Windows

Natural Languages: English, Ukranian, Spanish