Lucas Saldyt

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PathAI — Boston, Massachusetts
Software Intern (Machine Learning Deployment) — *May. 2020 - Current*

- Deployed state of the art machine learning models for cancer diagnosis and treatment in a profitable and safe real-world medical device *(Python, tensorflow)*
- Converted web-based components to more efficient local programs, i.e. by writing a controller which overcame inefficiencies of Kubernetes *(Minio, multiprocessing)*
- Networked with different departments and successfully integrated software components in Rust, Javascript, and Python *(AWS, S3, Docker)*

NASA Glenn Research Center — Cleveland, Ohio
Machine Learning Intern — *Jan. 2020 - May 2020*

- Architected a modular data and machine learning pipeline which aggregates and refines image, article, and taxonomy data on all 1.9 million living species *(Python, neo4j)*
- Experimented with new machine learning algorithm for image classification of all 1.9 million species which exploited taxonomic hierarchy *(pytorch)*
- Created a search engine from scratch based on original Google publications, which will enable engineers to find engineering solutions inspired by biology

NASA Kennedy Space Center — Cape Canaveral, Florida
Software Engineering Intern — *Jun. 2019 - Aug. 2019*

- Benchmarked and developed class A, safety-critical, human-rated spaceflight ground control software for the Artemis lunar exploration missions *(C++, Agile)*
- Prototyped display profile system for launch control engineers, saving engineers 30 minutes each launch, and minimized the probability of human error *(Java)*

ASU Complex Systems Research Group (Dr. Yun Kang) — Tempe, Arizona
Mathematics Research Assistant — *Oct. 2018 - Jun. 2019*

- Developed unique math/computer model of ant nest choice *(Differential Equations)*
- Created intuitive visual data analysis of live random forest machine learning algorithm effectiveness, focused on alarm signal propagation in ants *(Python, R)*

Sandia National Laboratories (Dr. Erik Nielsen) — Albuquerque, New Mexico
Quantum Computation Research Intern — *Jun. 2015 - Sep. 2018*

- Developed quantum benchmarking (Gate Set Tomography) software meant to perform computational experiments with sufficient fidelity for publication *(Python, C++, numpy)*
- Created distributed high-performance simulation, verification, and data analysis software by carefully profiling software and utilizing supercomputing clusters *(seaborn, SLURM)*
- Assisted in publishing papers in quantum benchmarking, and presented in Brussels, Belgium at the FOSDEM Software Conference *(LaTeX)*

Education

Arizona State University: Barrett, The Honors College — Tempe, Arizona
Bachelor of Science in Computer Science, GPA: 3.64 — *Sep. 2017 - May 2021*

Skills

Programming Languages: Python, C++, Rust, Java, C, x86_64 Assembly, Clojure (LISPs), Haskell . . .

Technologies: pytorch, tensorflow, numpy, pandas, nltk, plotly, seaborn, matplotlib, Django, neo4j, postgres, linux, AWS, s3, kubernetes, Docker, git, Agile, LaTeX