

Arleth Z. Salinas

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<https://arlethzuri.github.io/>

OBJECTIVE	Join the scientific computing and visualization research community to create new data tools to enable more robust scientific research. Complete my Ph.D. at the University of Utah.	
EDUCATION	University of Utah, Salt Lake City, UT Ph.D., Computer Science, Expected May 2028	
	The University of Chicago, Chicago, IL B.S., Computer Science, June 2023	
AWARDS AND HONORS	University of Chicago Odyssey Scholar, 2019 University of Chicago CAAP Scholar, 2019 DS4A Distinguished Scholar, 2020	
SKILLS	<i>Languages & Software:</i> Python, MATLAB, Julia, HTML, JavaScript, CSS, C, Java, Rust, L ^A T _E X, GitHub, Shodan, Visual Studio Code, Anaconda, Bash, Slurm, Spack, SQL <i>Operating Systems:</i> Linux, MacOS, Windows	
EXPERIENCE	<i>Graduate Research Assistance</i> University of Utah	August 2023-Present Salt Lake City, UT
	<ul style="list-style-type: none">• Create visualization workflows in Jupyter Notebook that are web publishable for use in the U.S.-Canada Center on Climate-Resilient Western Interconnected Grid (WIRED Global Center) project.• Present visualization workflows and teach how to use them so researchers may create their own visualizations from their collected weather and smoke/fire forecasts.• Conduct performance testing on idx2 compression and decompression on various systems and types of data to identify where optimizations are possible.	
	<i>Student Intern</i> University of Chicago Research Computing Center	September 2021-June 2023 Chicago, IL
	<ul style="list-style-type: none">• Professionally answer help tickets, answer calls, and consult walk-ins from a user base of diverse computational backgrounds on supercomputer usage• Guide users on issues such as RCC account creation and management, Slurm usage, Anaconda environment creation, Bash usage, file organization and transfer, and debugging of their code• Install software onto Linux environment of supercomputers• Assist computational scientist staff with their research by helping complete research tasks such as data cleaning and setting up and running machine learning experiments• Creating new internal and external documentation website for RCC users and staff• Onboard new student interns by teaching how to navigate RCC systems and how to handle support requests	
	<i>SULI Intern</i> Argonne National Laboratory	June 2021-August 2021 Remote
	<ul style="list-style-type: none">• Implemented a rank-1 eigendecomposition routine in Julia and MATLAB• Built a PCA routine using rank-1 updates with a fellow intern and with guidance from mentor	

- Experimented with GPU for rank-1 eigendecomposition routine on Argonne machines via remote connection
- Completed a research report, peer review, and presentation on my research

Metcalf Intern

June 2020-August 2020

Argonne National Laboratory

Remote

- Conducted a literature review on cybersecurity issues that arose from the COVID-19 pandemic
- Collected and cleaned data on COVID-19 vaccine developers' cybervulnerabilities using Shodan and Excel
- Presented findings to peers and scientists in addition to writing various reports submitted to mentor

COMMUNITY SERVICE

Spanish Tutor

September 2023-Present

Guadalupe School Adult Education

Salt Lake City, UT

- Teach personalized English lesson plan to students from diverse backgrounds every Tuesday for two hours at night.
- Identify areas for improvement in students during lesson and ensure student engagement with lesson materials by using dialogue, writing, and reading.
- Write down lesson results after completing each lesson for use by English Language Acquisition Specialist so they may plan the next lessons accordingly.

Co-lead

August 2022

AI for Movement Tracking Internship at RCC

Chicago, IL

- Co-lead and created a 2-week high school student internship about artificial intelligence
- Guided students through the process of collecting data, training, and evaluating machine learning models developed with DeepLabCut
- Prepared students to give 15 minute presentations on their research process and findings
- Taught AI at an introductory level through small lectures

Volunteer

July 2020

Coding for Science Camp at Argonne National Laboratory

Remote

- Guided students with debugging and testing their code
- Spoke on intern panel to high school students about my experience as an undergraduate intern at Argonne and about my college experience

EXTRA-CURRICULAR ACTIVITIES

Fellow

October 2020-February 2021

Data Science for All / Empowerment

Remote

- Attended interactive lectures about data analytics every Saturday
- Completed independent projects in Python using real-world data analytics cases
- Completed group project collecting, cleaning, and analyzing data using Pandas that visualized important factors about electric vehicle presence in NY state
- Coordinated meetings among my team, with mentors, and communicated progress to TAs