

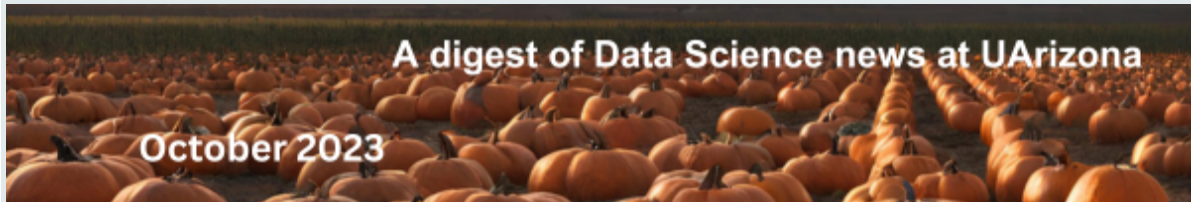
[To view this email as a web page, go here.](#)

THE UNIVERSITY OF ARIZONA



RESEARCH, INNOVATION & IMPACT
Data Science Institute

The Data Drip



DATA SCIENCE INSTITUTE (DSI)



DSI & CyVerse represented at UArizona Phoenix open house

In September 2023, the Data Science Institute and CyVerse were among the many Tucson research resources that attended the 5th annual open house in Phoenix co-hosted by UArizona College of Medicine – Phoenix Research Office and Research, Innovation & Impact. They connected with faculty, staff, clinicians, postdocs, research staff, fellows, residents, graduate students, medical students and volunteers and heard from the leadership about research support available in Phoenix and Tucson.

Coming soon - UArizona Research Software Engineers (RSE) Group

[DSI](#), [ICDI](#), and other UArizona departments are leading an effort to form a Research Software Engineers (RSE) Group at UArizona based on the growing interest from research software engineers and other stakeholders across the

campus. The RSE will help build a campus community to support the UArizona research mission.

RSE regularly use programming expertise to advance research. Read more about the important function of RSE in the article, [Paul Sarando and the role of RSEs in driving innovation at UArizona](#). Learn more about RSE groups and the benefits of UX from User Experience designer, Mariah Wall, in the article, [Research Software Engineering with UX: A Holistic Approach for Inclusive Innovation](#).



Join to learn more or be part of the UArizona Research Software Engineering Group by emailing RII-datascienceinstitute@arizona.edu.

DSI CALENDAR

Be sure to check regularly the [Data Science Institute's calendar](#) for information about useful data science workshops, trainings, and events offered by the Data Science Institute, UArizona Data Lab, and other departments across campus.

NEWS AND ACTIVITIES



Step into the Data Lab at UArizona

The University of Arizona Data Lab (UArizona Data Lab) serves as a vibrant center for fostering interdisciplinary research in the field of data science. It offers a collaborative environment where researchers and students from diverse disciplines come together to explore, analyze, and extract insights from complex datasets. [Contact](#) the UArizona Data Lab to learn how we can partner or bring the UArizona Data Lab experience to your department.

[UArizona Data Lab: Unlocking the Power of Data - A Journey Through Machine Learning & Deep Learning](#)

(Tuesday series)

- 10/31 2pm UArizona Data Lab: Natural Language Processing: Text Mining and Sentiment Analysis
- 11/07 1pm UArizona Data Lab: Time Series Analysis: Forecasting the Future
- 11/14 1pm UArizona Data Lab: Deep Dive into Deep Learning: Neural Networks Demystified
- 11/21 1pm UArizona Data Lab: Computer Vision: Image and Video Analysis
- 11/28 1pm UArizona Data Lab: AI Tools Landscape

UArizona Data Lab: Deep Dive into Deep Learning - An Exploration (Thursdays)

- 11/02 1pm UArizona Data Lab: Training a model from scratch+ Multimodal- vision, video, audio
- 11/09 1pm UArizona Data Lab: Databricks, SageMaker, Cyverse
- 11/16 1pm UArizona Data Lab: How GPT and other Large Language Models Work
- 11/30 1pm UArizona Data Lab: Quantum AI



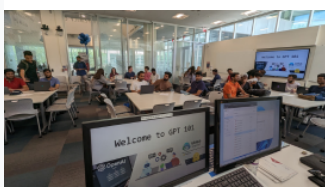
UArizona well represented at 1st Annual US-Research Software Engineering Association Conference

ICDI, UITS Research Technologies, DSI, CyVerse, and Computer Science graduate students were in attendance at the first US-RSE Association Conference. **Sarah Roberts** and **John Xu** with CyVerse presented papers during the DevOps & Cyberinfrastructure panel at the conference held in Chicago:

“CyVerse Discovery Environment: A Technological Solution to the Reproducibility Crisis in Scientific Research”, Samantha Boleyn, Paul Sarando, John Wregglesworth, Ian McEwen, Tony Edgin, and Sarah

Roberts. The paper examines the potential of containerization technology, specifically the CyVerse Discovery Environment (DE), as a solution to the reproducibility crisis in research

"CACAO: A Research Software Platform for the Cloud", John Xu, Illyoung Choi, and Edwin Skidmore. The paper introduces CACAO, a research software platform that simplifies the use of cloud computing in scientific research and education.



Welcome to GPT 101

Covering more than the basics, [Tyson Swetnam](#) engaged 80 graduate students from the Eller Masters of Business Analytics and Masters of Management Information departments during the lecture, "Welcome to GPT 101."



Conduct research in a secure data analysis enclave with Soteria

[Soteria](#) changes the way researchers analyze and manage projects with protected data like PII and PHI. Soteria is a secure data and analysis enclave where teams can collaboratively organize and analyze data while adhering to compliance requirements associated with protected data. Resources and state-of-the-art tools are available through Soteria. Explore which tools can help propel your research.

[Apply now for Soteria access](#)

UArizona CyVerse accounts available



Get your free UArizona CyVerse account thanks to the Technology and Research Initiative Fund (TRIF) and the UArizona CyVerse subscription with over 2,500 Academic Pro accounts.

[Get your UArizona CyVerse account](#)



Spotlight you and your research!

The Data Drip will highlight UArizona students, faculty, staff, research, data science projects, tools, and/or software. DSI wants to shine the light on you. Let us know what you want to share.

[Email us to contact you](#)

MUSINGS AND OPINIONS

The views and opinions expressed in *The Data Drip* do not necessarily reflect the official policy or position of the UArizona Data Science Institute or the University of Arizona.

DSI Spotlights

The Data Science Institute highlights three [University of Arizona Graduate Research Assistants](#) who provide valuable skills to the [UArizona Data Lab](#) run by [Carlos Lizárraga](#). The collective expertise within the UArizona Data Lab makes it well-positioned to advance interdisciplinary research in the field of data science across various UArizona departments.

[READ MORE](#)

Please feel free to share [The Data Drip](#) with your friends and colleagues! They can [subscribe](#) by completing a brief form. Let us know if you have data science news that you want us to share in *The Data Drip* or on the [Data Science Institute](#) website.



The UArizona data science community is reading and sharing...



- [AI and science: what 1,600 researchers think](#)
- [Open Science & Open Scholarship - Academic Data Science Alliance](#)
- [Notebook on nbviewer](#)
- [Zenodo launched on next generation platform - InvenioRDM](#)
- [AI rapidly diagnoses brain tumours during surgery](#)
- [PSIP - Productivity and Sustainability Improvement Planning guides](#)
- [Tools For Code Analysis and Mining](#)
- [Cloudflare Sippy: Incrementally Migrate Data from Amazon S3 to Reduce Egress Fees](#)
- [Reproducibility trial: 246 biologists get different results from same data sets](#)
- [Fine-tuning Aligned Language Models Compromises Safety, Even When Users Do Not Intend To!](#)
- [AI revealed the colorful first word of an ancient scroll torched by Mount Vesuvius](#)
- [Cloud Costs Every Programmer Should Know](#)
- [Welcome to Taipy | Taipy](#)
- [Machine learning on FPGAs using HLS](#)
- [Perspective: Unlocking ML requires an ecosystem approach](#)
- [Announcing Python in Excel: Next-Level Data Analysis for All | Anaconda](#)

Read more news about the UArizona data science community on the [Data Science Institute news](#) site.

CALENDAR

Data science workshops are available across campus. Take a look at the DSI [calendar](#) of events for more workshops. To see your data science events listed below and on the DSI Events page, complete the DSI [calendar](#) request form.

OCT/
NOV
Tues

[UArizona Data Lab: Unlocking the Power of Data - A Journey Through Machine Learning & Deep Learning \(Tuesdays\)](#)

- 10/31 2pm NLP: Text Mining and Sentiment Analysis
- 11/07 1pm Time Series Analysis: Forecasting the Future

- 11/14 1pm Deep Dive into Deep Learning: Neural Networks Demystified
- 11/21 1pm Computer Vision: Image and Video Analysis
- 11/28 1pm AI Tools Landscape

OCT/
NOV
Thurs

UArizona Data Lab: Deep Dive into Deep Learning - An Exploration (Thursdays)

- 11/02 1pm Training a model from scratch+ Multimodal-vision, video & audio
- 11/09 1pm Databricks, SageMaker, Cyverse
- 11/16 1pm How GPT and other Large Language Models Work
- 11/30 1pm Quantum AI

NOV
04

Software Carpentry Workshop

The workshop is aimed at graduate students and researchers at all stages of their education and careers who wish to learn computational tools to increase the reproducibility and efficiency of their work.

NOV
5-9

Astronomical Data Analysis Software and Systems XXXIII (ADASS) Conference

ADASS provides a forum for scientists and programmers concerned with algorithms, software, and software systems employed in the acquisition, reduction, analysis, and dissemination of astronomical and planetary science data.

NOV
14

Git and GitHub with RStudio

This lesson provides an introduction to the version control system Git, one central sharing point called GitHub, and how you can use the two in RStudio.

NOV
28

Data science: More Fun, Less Pain with Tidyverse

The tidyverse (<https://www.tidyverse.org/>) package for R includes several helpful functions that make it easier to manipulate, summarize, and visualize your data. In this lesson we'll use these functions to create plots from summary statistics.

NOV
29

End-to-end data science workflows with Posit Team

Posit will walk through an end-to-end data science workflow and demo the core functionality of Posit Team while highlighting some of the latest features!

Add me to the email list.

Did a friend send this email to you? Subscribe to let us know to add you to the Data Science Institute email list. Or email the Data Science Institute so we can be of assistance to you and your research.

SUBSCRIBE TO THE DATA DRIP

EMAIL THE DATA SCIENCE INSTITUTE

You are receiving this email from the **Data Science Institute** mailing list.

University of Arizona, 1401 E. University Blvd., Tucson, AZ 85721, US
© Copyright 2023 The University of Arizona. All rights reserved.

Land Acknowledgment

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.