



**ICICLE**  
DEMOCRATIZING AI

# NEWSLETTER

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**NSF AI INSTITUTES FOR  
ADVANCES IN OPTIMIZATION (AI4OPT) AND  
INTELLIGENT CYBERINFRASTRUCTURE WITH COMPUTATIONAL  
LEARNING IN THE ENVIRONMENT (ICICLE)  
SIGN MOU TO STRENGTHEN COLLABORATION**

In a significant step towards promoting food logistics and building resilient multi-agent supply chains, NSF AI Institutes AI4OPT and ICICLE signed a Memorandum of Understanding (MoU) to enhance their partnership.

The two NSF AI Institutes will work closely together to build an academic consortium, optimizing food logistics across farmers, food security organizations, food aggregators and distributors.

Partners will explore optimizing existing supply chains and model cooperative multi-agent supply chains at a regional level.

**JOIN US FOR  
SEPTEMBER  
SEMINAR SERIES**

**DR. MAAZ GARDEZI PRESENTS  
"RESPONSIBLE INNOVATION IN PRECISION AGRICULTURE"**

Dr. Maaz Gardezi, an assistant professor in the Department of Sociology at Virginia Tech, is dedicated to exploring the intersection of climate change and the social and political implications of emerging digital technologies in food and agriculture systems.

Responsible innovation is crucial in the realm of precision agriculture and climate-smart farming, where data-driven technologies, AI modeling, and localized farm data hold immense potential for improving both farm productivity and environmental sustainability. However, to fully harness the benefits of these innovations, it is imperative to cultivate trust among farmers in the information provided by AI and sensor data technologies.

This presentation presents opportunities to go beyond theoretical discussions by utilizing real farms in South Dakota, Vermont, and Virginia, as dynamic testbeds or "living labs" for responsible innovation.

**Thursday, September 14, 2023 at Noon ET**

Details available [here](#)



## **AUGUST NEXTGENS STUDENT COMMUNITY MEETING**

### **NAVIGATING RESEARCH INTERESTS AND ENHANCING COLLABORATIVE PROGRESS AMONG ICICLE NEXTGENS**

The August 24th ICICLE NextGens Meeting proved highly productive, fostering professional development and collaboration within the group.

Its primary objective was to elicit ideas and feedback from ICICLE NextGens regarding their strategies for enhancing collaborative progress with peers.

The meeting commenced with a thorough examination of LinkedIn best practices within ICICLE, underscoring the practical importance of knowledge sharing and the value of staying updated on ICICLE and related research via LinkedIn and Twitter.

This dialogue actively encouraged members to employ these platforms as effective networking and information exchange tools. Subsequently, the gathering delved into navigating research interests across varying career stages, explicitly focusing on research students.

This brief yet insightful discussion provided valuable guidance on establishing a solid research foundation, regardless of experience level. Participants were also prompted to evaluate their familiarity with ICICLE projects, trust group affiliations, and engagement with fellow ICICLE NextGens.

The meeting emphasized the potential for collaboration spanning different thrusts and highlighted the networking opportunities presented at conferences, reinforcing the importance of collective research expansion.

#### ICICLE Next Generation





## ICICLE TIPS ON AI ETHICS

A series of short videos that situates AI Ethics in an accessible, tip-oriented manner. The series is motivated by the belief that ***forethought about ethical implications can create better outcomes.*** Check out the tips listed below -

TIP #1: REMEMBER THAT AI IS NOT INEVITABLE.

TIP #2: RECOGNIZE THAT OUR RESPONSIBILITY IS TO THE POSITIVE  
OUTCOMES WE WORK TOWARDS

TIP #3: DIMENSIONS OF PRIVACY

TIP #4: FAIRNESS – FOCUS ON STAKEHOLDERS AND USE-INSPIRED  
SCIENCE

TIP #5: TRUSTWORTHINESS – WHAT DOES IT TAKE TO TRUST AI AND  
CYBERINFRASTRUCTURE ?

TIP #6: ACCOUNTABILITY – PROVIDES MECHANISMS FOR EVALUATING  
TRUSTWORTHINESS

Browse all Tips for AI Ethics [here](#)

## ICICLE TIPS ON ALLYSHIP

The Broader Impact Backbone Network team has created tips in video format on how we, here at ICICLE, can become better allies

**TO PROMOTE AN AWARE , INCLUSIVE , AND MORE DIVERSE COMMUNITY**



Browse all Tips for Allyship [here](#)



## RECENT PRESENTATIONS & PUBLICATIONS

### PUBLICATIONS

- Vallabhajosyula, Swathi, and Rajiv Ramnath “Towards Characterizing DNNs to Estimate Training Time using HARP (HPC Application Resource (runtime) Predictor)”, July 2023
- Vallabhajosyula, Swathi, and Rajiv Ramnath, “ Insights from the HARP Framework: Using an AI-Driven Approach for Efficient Resource Allocation in HPC Scientific Workflows”, July 2023

### PRESENTATIONS

- Patrick R. Huber, Allan Hollander, Matthew Lange, Courtney Riggle, Han-Wei Shen, Yamei Tu, Xiaoqi Wang, Rui Qui, Thomas Tomich, “The future of information is now: visualizing PPOD networks and the Internet of Conservation”, 2023 International Congress for Conservation Biology, July 2023
- Song Gao, "Geospatial AI and the Future of Mapping", In the National Academies, Geographical and Geospatial Sciences Committee Meeting, May 2023

Click [here](#) to view all ICICLE Presentations and Publications

## SUBSCRIBE TO ICICLE MAILING LISTS

The following mailing lists are available for ICICLE software and cyberinfrastructure releases, future updates and miscellaneous questions regarding installation/build problems, performance issues.

- **icicle-announce**: This is an announcement list only. If you would like to get information about future updates, software and cyberinfrastructure releases, publications, etc. related to the ICICLE project, you may subscribe to this mailing list. This list is open to public. You are welcome to subscribe to this mailing list yourself.
- **icicle-discuss**: This is a discussion list. This mailing list is meant for users to discuss all installation/build problems, performance issues, features and other miscellaneous questions related to the different software and cyberinfrastructure components of the ICICLE project. In order to post your questions and suggestions to this mailing list, you need to be a registered user of ICICLE with an organizational e-mail address and be a member of this list by subscribing to it with the same e-mail address. If you are not a registered user, please follow the procedure indicated under Download tab in the top menu to get registered.

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