

### NEWSLETTER

ISSUE 14 - OCTOBER 2023

## REPRESENTING ICICLE AT SAIL - SUMMIT FOR AI INSTITUTES LEADERSHIP

Several institute members attended the SAIL Summit and AI Expo Day held at Atlanta, Georgia from October 23 through October 26. The four day program included a variety of events such as special interest groups, workshops, panel discussions and an opportunity to network with other AI Institutes. ICICLE was well-represented throughout the program. Many new connections were established with representatives from other AI Institutes as well as external visitors attending Expo Day.







### **ICICLE RELEASE 2023.10**

The ICICLE team aims to build the next generation Cyberinfrastructure (CI) to render Artificial Intelligence (AI) more accessible to everyone and to drive its democratization further in solving larger societal problems. It is with great pleasure that we announce 2023.10 release of ICICLE CI components.

This release includes the following components

### New to ICICLE CI Catalog

Intelligent Cyberinfrastructure

Al for CI-for-Al: High Performance Computing Applications Dataset v1.0

Software Architecture and Design: iciflaskn v1.0

### ICICLE CI Components Changelog

Intelligent Cyberinfrastructure

Al for CI-for-AI: HPC Application Runtime Predictor (HARP) v2.0

Software Architecture and Design

- TapisCL-ICICLE v1.0.11
  - ICICONSOLE v0.8.0

### Use Inspired Science

Animal Ecology: Camera-Traps Edge Simulator v0.3.2

Visual Analytics: Smart Foodsheds Visual Analytics (VA) Dashboard v0.3

The ICICLE team is committed to delivering the best software and CI components. We welcome your feedback and suggestions for future releases. A list of all ICICLE components can be found on our website under <u>CI & Software</u>

Please subscribe to <u>icicle-discuss</u> and post to discuss all installation/build problems, performance issues, features and other miscellaneous questions related to the different software and CI components of the ICICLE project.

Subscribe to our mailing list icicle-announce to stay up to date on the latest ICICLE news and releases.

Acknowledgements: This release is brought to you by the National Science Foundation (NSF) funded AI institute for Intelligent Cyberinfrastructure with Computational Learning in the Environment (ICICLE) (OAC 2112606)

### NEXTGENS STUDENT COMMUNITY MEETING



ICICLE NextGens Student Community - Welcoming ICICLE Educational Fellows and new NextGens to the ICICLE'23 All Hands

The October NextGens meeting was a gathering of ICICLE NextGens, encompassing both returning members and newcomers, along with Educational Fellows. It served as an opportunity to welcome the Educational Fellows into the ICICLE community and familiarize everyone, particularly the new attendees, with what typically occurred during the ICICLE All-Hands Meeting. The event aimed to foster connections, share insights, and provide an inclusive environment for all participants.



Activity: Built a Bridge using News Papers & Tape Goal:

The bridge should hold an object for 30 seconds

# ICICLE NEXTGENS AT GRACE HOPPER CELEBRATION'23 EMPOWERING WOMEN IN TECH, THE WAY FORWARD



Sowbaranika Balasubramaniam, ICICLE Nextgens member attended the Grace Hopper event. Sharing her thoughts she stated "I recently had the privilege of attending the Grace Hopper Celebration (GHC) 2023, an inspiring event dedicated to empowering women in technology. The opportunity to attend for the first time, combined with the enthusiastic feedback I had received from previous attendees, left me brimming with excitement and curiosity.

During the event, I participated in pre-networking events and braindates, connecting with people from similar backgrounds. Additionally, I attended the career fair and engaged with top companies like Google, Apple, and Amazon, as well as other private firms.

My affiliation with ICICLE proved invaluable; recruiters showed keen interest in our Smart Camera Traps project for Animal Ecology. I distributed ICICLE flyers, providing an overview of our initiatives".

### 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 ALLS 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 ALAND CYBERINFRASTRUCTURE?
- TIP #6: ACCOUNTABILITY PROVIDES MECHANISMS FOR EVALUATING TRUSTWORTHINESS
- TIP #7: AI DEMOCRATIZATION IN ICICLE

Browse all Tips for Al 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



### 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 Al-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 cyberinfrasturucture releases, future updates and miscellaneous questions regarding installation/build problems, performance issues.

- <u>icicle-announce</u>: 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 cyberinfrasturucture 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. We welcome your interest to partner with ICICLE!

Please complete this **form** and we'll reach out to you.



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