2023 AWARE-AI ONBOARDING

awareainrt@rit.edu

Wednesday Aug 23 (Day 1)

Golisano Hall/GCI CYB 70-2780

9:00 - 9:30 a.m. Introductions CRT-NRT trainees and breakfast

9:30 - 11:30 a.m. Session I

Orientation by NRT Director

Dr. Cecilia Alm, PI and AWARE-AI Director

11:30 - 12:00 p.m. Session II

Internships overview and completion of internships form (bring CV and cover letter)

Dr. Ferat Sahin, Co-PI

12:00 - 12:45 p.m. Lunch with interactive recap of key orientation points with Dr. Alm

12:45 - 2:00 p.m. NRT faculty's lab overview + lab resources talks

2:00 - 2:30 p.m. Session III

Lab rotations overview and completion of lab rotations form

Dr. Reynold Bailey, Co-PI; Dr. Alex Ororbia, SP

RIT

AWARE-AI NSF Research Traineeship Program

2:30 - 3:45 p.m. Research to Mentoring Bridge: AI Software

Dr. Bailey

Dr. Ororbia

Dr. Alm

Dr. Baheri

3:45 - 4:00 p.m. Networking coffee mingle

4:00 - 5:00 p.m. iSession IV

Senior Scientist Plenary Talk in CYB-1710-30
Global Cybersecurity Center
Using Large Language Models to Build Explainable Classifiers
Dr. Chris Callison-Burch
Associate Professor
University of Pennsylvania
AI2 Research Sabbatical
Introduced by Dr. Cecilia Alm

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RIT

AWARE-AI NSF Research Traineeship Program

Using Large Language Models to Build Explainable Classifiers

Wednesday August 23
at 4:00 p.m. ET
in CYB 070 1710-1730

Chris Callison-Burch
University of Pennsylvania
Philadelphia, PA, USA
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ABSTRACT: This presentation discusses research on using large language models (LLMs) to build explainable classifiers. It will show off work from my PhD students and collaborators on several recent research directions:

- Image classification with explainable features (arxiv.org/abs/2211.11158)
- Text classification with explainable features (work in progress)
- The importance of faithfulness in explanations (arxiv.org/abs/2209.11326)
- A faithful "chain of thought" LLM reasoner that produces code in its explanations (arxiv.org/abs/2301.13379)

The talk will cover joint work with: Adam Stein, Ajay Patel, Ansh Kothary, Artemis Panagopoulou, Daniel Jin, Delip Rao, Eric Wong, Harry Li Zhang, Kathleen McKeown, Marianna Apidianaki, Mark Yatskar, Shenghao Zhou, Shreya Havaldar, Veronica Qing Lyu, Yue Yang, and others.

BIO: Chris Callison-Burch is an associate professor of Computer and Information Science at the University of Pennsylvania. His course on Artificial Intelligence has one of the highest enrollments at the university with 500 students taking the class each Fall. He is best known for his research into statistical machine translation, paraphrasing and crowdsourcing. His current research is focused on applications of large language models to long-standing challenge problems in artificial intelligence. His PhD students joke that now whenever they ask him anything his first response is “Have you tried GPT for that?” Prof Callison-Burch has more than 100 publications, which have been cited over 20,000 times. He is a Sloan Research Fellow, and he has received faculty research awards from Google, Microsoft, Amazon, Facebook, and Roblox, in addition to funding from DARPA, IARPA, and the NSF.

RIT

AWARE-AI NSF Research Traineeship Program

Providing Privacy for Eye-Tracking Data with Applications in XR

Thursday August 24 at 11:00 a.m. ET in CYB 070-1750

Brendan David-John
Virginia Tech
Blacksburg, VA, USA
bmdj@cs.vt.edu

ABSTRACT: Eye-tracking sensors track where a user looks and are being increasingly integrated into mixed-reality devices. Although critical interactions are being enabled via ML models on sensor data, there are significant possibilities for violating user security and privacy expectations. There are appreciable privacy risks of eye-tracking data, including unique user identification. Biometric re-identification could allow cross-app identification that connects a user's personal ID with their work ID without needing their consent, for example. Solutions are presented that address concerns related to the leaking of biometric features through eye-tracking data streams. Privacy mechanisms are introduced to reduce the risk of identification with formal guarantees while still enabling ML applications of released eye-tracking data streams. Gaze data streams can thus be made private while still allowing for applications key to the future of mixed-reality technology, such as applying deep gaze prediction models for foveated rendering, and models for activity or document type classification.

BIO: Dr. Brendan David-John is an Assistant Professor of Computer Science at Virginia Tech. David-John was the first Native male to graduate with a doctorate in Computer Science from the University of Florida in 2022, and received his BS and MS from the Rochester Institute of Technology in 2017. He is from Salamanca NY, which is located on the Allegany reservation of the Seneca Nation of Indians. His personal goals include increasing the representation of Native Americans in STEM and higher education, specifically in computing. He is a proud member of the American Indian Science & Engineering Society and has been a Sequoyah Fellow since 2013. His research interests include virtual reality and eye tracking, with a primary focus on privacy and security for the future of virtual and mixed reality.

Thursday Aug 24 (Day 2)

Golisano Hall/GCI CYB 70-2780

9:00 - 9:30 a.m. Pre-meeting session by Dr. Shinohara:
MSI visits and completion of visit form (bring CV)
Participants:
Liya, Mahsa, Marzieh, Michael, Rodney, Will

9:30 - 10:15 a.m. Breakfast: Trainee Council overview with Director

10:15 - 11:00 a.m. Session V

Seed funding award competition

Esa Rantanen, Seed funding chair
Prior winner Emily Kuang, PhD trainee

11:00 - 12:00 p.m. Session VI

Pre-tenure Scientist Plenary Talk in CYB-1750 Cyber Range, Global Cybersecurity Center
Providing Privacy for Eye-Tracking Data with Applications in XR
Dr. Brendan David-John
Assistant Professor, Virginia Tech
Introduced by Dr. Reynold Bailey

12:00 - 1:00 p.m. Debriefing lunch break with Dr. Sahin

1:00 - 2:00 p.m. Research to Mentoring Bridge: HCI for AI


Dr. Shinohara


Dr. Tigwell


Dr. Peiris

2:00 - 2:45 p.m. Research to Mentoring Bridge: AI Hardware


Dr. Sahin


Dr. Yang

2:45 - 3:30 p.m. Coffee and interaction with plenary speaker

3:30 - 4:15 p.m. Session VII

Evaluator's pre-survey

Introduction by Reynold Bailey

4:15 - 5:30 p.m. NRT Trainees' breakout groups
by research tracks for planning and
final research plan/lightning talk preparations

Links:

AWARE-AI Twitter	https://twitter.com/AWAREAINRT
AWARE-AI Instagram	https://www.instagram.com/rit_awareai
Lab rotations form	https://forms.gle/9zNWo6gPRcwqSRoC8
Internship form	https://forms.gle/V2biDMp5Q2JPnX5K9
MSI form	https://forms.gle/vq3vnwjyw2eRDdHs8

Friday Aug 25 (Day 3)

Golisano Hall/GCI CYB 1710-1720

8:45 - 9:30 a.m. Breakfast and virtual interaction with Dr. Callison Burch

9:30 - 10:30 a.m. Session VIII


Conflict resolution in research teams

Joe Johnston/Ashley Meyer, Ombuds Office
Chair: Dr. Esa Rantanen

10:30 - 11:15 a.m. Research to Mentoring Bridge: Cognitive Models for AI


Dr. Rantanen


Dr. Heard

11:15 - 12:00 p.m. Session IX

Workshop on professional communication: Setting Up LinkedIn, Google Scholar, and considerations for your professional website

Chair: Dr. Reynold Bailey
Alex Ororbia, Ferat Sahin, Faculty Respondents

12:00 - 1:00 p.m. *Peer-2-Peer Program*
Lunch with peer mentor interactions
Chair: Dr. Ferat Sahin

1:00 - 2:45 p.m. Session X
Chair: Dr. Esa Rantanen
NRT Trainees: Research plan talks
(12 min + 3 min Q&A):


T1: M. Mozaffari


T1: M. Peechatt


T2: R. Sanchez


T3: M. Shahbazi


T3: L. Thomas


T4: W. Gebhardt

2:45 - 3:30 p.m. Coffee celebration of AWARE-AI alumni

3:30 - 5:00 p.m. Session XI
Incoming NRT Trainees: Lightning talks
(5 min each + Q&A)
Chair: Dr. Kristen Shinohara

F. Hyder, G. Park, H. Hendy, M. Raziuddin Chowdhury, N. Sahar, R. Ramadass, R. Fayyazi, R. Sahay, Y. Wang, N. Zarrin Tasnim

5:00 p.m. Concluding remarks by Dr. Cecilia Alm