University of Pittsburgh

Informatics and Networked Systems
School of Computing and Information

You are receiving this email because you are enrolled in the MSIS/MST graduate degree programs within the Department of Informatics and Networked Systems at the School of Computing and Information. Each weekly newsletter will feature important updates on career/academic and job opportunities, department and school events, enrollment guidance and upcoming academic deadlines.

JAMES PETRAGLIA
DINS DEPT. & GRADUATE SUPPORT ADMINISTRATOR

Available in Person in IS Building Room 706 starting January 3, 2024, Monday through Friday 8:30am to 5pm

Did you submit your official transcripts from your undergraduate or prior university/college before starting your MSIS/MST degree or graduate certificate?

You will need to request an official transcript from all previous institutions you have attended, regardless of whether or not a degree was conferred, before the first day of your first term of study. Please contact scirecords@pitt.edu if you cannot obtain official copies of your final transcript(s) before this deadline. We will update your student checklist once your official transcripts have been received and processed. No transcripts will be accepted or considered official if not sent directly from the originating institution to the SCI Records Office. All official transcripts should be sent to the SCI Records Office directly from the originating institution either via email (scirecords@pitt.edu) or to the address below:

SCI Record Office
Fifth Floor, Information Sciences Building
135 North Bellefield Avenue
Pittsburgh, PA, 15260

Please keep in mind that **your graduation application will not be approved if you do not submit this documentation when you become eligible to apply for graduation.**

Friday, March 1, 2024

Profiling humans from their voice: A journey from the past to future generation technologies

Rita Singh, School of Computer Science, Carnegie Mellon University

12 noon to 1 pm

Conference Room (Fifth Floor) in 130 N. Bellefield Building, across the street from the IS Building

In this talk, we will explore the fascinating domain of human voice profiling, a field at the confluence of voice forensics and artificial intelligence (AI) that I have been developing since 2014. The human voice serves as a unique and dynamic biometric signature, rich in personal information and responsive to a variety of influencing factors. This presentation will chart the evolution of voice profiling techniques—from traditional signal processing to advanced AI-driven methods—highlighting the key methodologies used to delve deeper and deeper into the human persona through voice. These methodologies essentially emerge by connecting the dots between a wide range of areas—from physics and biomechanics to machine learning and AI, to cytogenetics and genomics. As we navigate through the complexities and mysteries of the human voice, as a biometric identifier and a medium to infer the speaker's state, we uncover its profound implications for future human-machine interactions. As the world progresses towards Artificial General Intelligence (AGI) —we also speak of its physical embodiments. We will discuss why the science of human profiling is expected to play a pivotal role in embodied AGI systems of the future.

Rita Singh is an Associate Research Professor at the CMU's School of Computer Science/Language Technologies Institute, with affiliations to three other departments. At CMU, she leads the Center for Voice Intelligence and Security (CVIS: http:// cvis.cs.cmu.edu/), and co-leads the Machine Learning for Signal Processing and Robust Speech Processing research groups. She has worked on speech and audio processing for over two decades. Since 2014, her work has been focused on developing the science of profiling humans from their voice, a niche area at the intersection of Artificial Intelligence and Voice Forensics. The technology pioneered by her group has led to three world firsts: In 2018, her team created the world's first voice-based profiling system, demonstrated live at the World Economic Forum. In 2019 her group also created the world's first instance of human voice – that of the artist Rembrandt – generated based on evidence from facial images. In 2020, her team conceptualized and enabled the first voice-based detection system for Covid-19. She is the author of the book "Profiling Humans from their Voice," published by Springer-Nature in 2019. She has assisted multiple international agencies in analyzing voice evidence for identifying and profiling potential suspects in crimes under investigation. Her contributions have been recognized in global media, with several hundred mentions in various national and regional newspapers, magazines, online articles, TV and radio programs, podcasts and private talks, including a few church sermons.

You can find more information here: DINS Seminar Series: 2023-24 | Department of Informatics and Networked Systems | University of Pittsburgh

_____

Pitt Day of Giving, February 27th...Support DINS! | Department of Informatics and Networked Systems | University of Pittsburgh

On February 27, 2024, Pitt will host its eighth annual "Pitt Day of Giving." On that Tuesday, you will have a chance to join thousands of alumni, students, faculty, staff, friends and families in making a financial gift to support the programs, students, and research of the university and the DINS community.

DINS is the home of the undergraduate major in Information Science and Computational Social Science (joint with Political Science).

DINS recently introduced the IS Minor!

DINS is the home of graduate degrees in Information Science and Telecommunications.

We hope that you will support Pitt and the Department of Informatics and Networked Systems by making a gift to DINS on February 27, 2024!

Pitt Day of Giving Website: Department of Informatics and Networked Systems - Pitt Day of Giving
Spring 2024 DINS Student Awards & Applications

Spring Term 2024 Awards -- How to apply and selection criteria

Thanks to the support of donors and friends of the department, we have several opportunities for you to secure awards to help pay for your tuition and other university-related expenses!

DEADLINE TO SUBMIT APPLICATIONS: **March 7, 2024.**

You can find additional information here: Spring 2024 DINS Student Awards & Applications | Department of Informatics and Networked Systems | University of Pittsburgh

Systems Software Engineer

Emerald Innovations
Cambridge, MA

(Onsite)

Role Description

At Emerald, we are building a full-fledged distributed system consisting of reliable, high performance IoT sensors that collect and process wireless signals, and a cloud infrastructure that securely receives and stores all the data. The cloud also performs advanced AI and machine learning techniques to build accurate and detailed health analytics. As a core team member, the ideal candidate would be multi-talented, excited to tackle hard problems, and deliver at startup pace while working with a small, tight knit group of skilled and experienced engineers.

[Systems Software Engineer | Emerald Innovations | Handshake (joinhandshake.com)](https://joinhandshake.com)

2024 Summer Intern, Computer Vision

Samsung Research America
Mountain View, CA
 (Onsite)

Role Description

Lab Summary:

Samsung Research America (SRA) plays a pivotal role in developing the next generation of discovery in software, user experience and services for future products that can enrich your life.

Our mission is to research and develop new technologies by collaborating with the best and brightest and creating a collaborative environment between industry and academia. Headquartered in Silicon Valley, with locations in many technology centers in North America, SRA is driven to build a culture of innovation that rapidly translates research and new ideas into the unexpected.

Position Summary:

In this internship, the student will participate in our current research on optical based image transformation including depth based reprojection. Particular focus will be on the interoperability of traditional computer vision techniques and Machine learning techniques.

Position Responsibilities:

- Work with existing engineers to understand current system.

- Experiment with alternative approaches to our current solution
- Create poster session from resulting work.

Required Skills:

- Currently pursing a MS or PhD in a related field
- Solid understanding of deep learning algorithms and experience with bringing machine learning technologies into research, product systems. This includes depth from image, object recognition, panoptic segmentation, etc.
- Solid foundation in computer vision; key areas of interest include camera tracking, multiple view geometry, 3D scene comprehension, camera calibration, camera transformation, etc.
- Solid foundation in software development and related tools.
- Proficiency in C, C++ programming language and at least one another prototyping language such as MATLAB or Python.
- Strong teamwork, communication skills, passion, productivity, and self-learning ability.

(40) 2024 Summer Intern, Computer Vision | Samsung Research America | Handshake (joinhandshake.com)

_____

For those planning on graduating in Spring of 2024 (otherwise known as term 2244 in PeopleSoft), you must apply to graduate to get your diploma (and, of course, successfully complete all appropriate coursework)!

Here is the timeline for Term 2244:

Graduation Application Closes – 4/1/24

If you are working on a Master's or Doctoral Thesis.-Final Day for ETD Paperwork & D-Scholarship Upload – April 22, 2024- (What to Do After You Defend Your Thesis/Dissertation | Electronic Theses and Dissertations (pitt.edu))

********Please be advised, that if you have any questions, you can always reach out to me via email (jap306@pitt.edu) and phone number (412-383-4212). ************

Regards,
James Petraglia (Pa-trail-ya)