

*Promoting the Academic, Social, and Professional Growth  
of Technical Women in Upstate New York*

**APRIL 9-10, 2021**

*Virtual, via Gather*

## Friday, April 9

- 10:00am-1:00pm** Gather Orientation (*Gather Lobby*)\* optional
- 1:00-2:00pm** Welcome and Unboxing (*The Grace Hopper Room*)
- 2:00-3:00pm** Networking Event (*The Nicki Washington Room*)
- 3:00-4:00pm** Poster Session (*The Megan Smith Room*)
- 4:15-5:15pm** Breakout Session 1
  - 4:15-5:15pm Panel: My Job is so Cool (*The Ada Lovelace Room*)
  - 4:15-5:15pm BoF: Learning and Sharing from the Decade Long Journey of Success and Failures on Women in Computing Initiatives at Farmingdale State College (*The Hedy Lamarr Room*)
  - 4:15-5:15pm Workshop: Resume Critique (*The Mary Keller Room*)
  - 4:15-5:15pm Community Event: All Level Yoga and Meditation (*The Katherine Johnson Room*)
  - 4:15-4:45pm Research Talk: Information Privacy: A Review of Levels of Analysis and Theories in IS (*The Anita Borg Room*)
  - 4:45-5:15pm Research Talk: Towards a Sufficient Unified Ethical Frameworks for AI: Challenges & Opportunities (*The Anita Borg Room*)
- 5:30-6:30pm** Keynote with Doris Conti from IBM (*The Grace Hopper Room*)
- 6:45-7:45pm** Breakout Session 2: First Timers Research Talks
  - 6:45-7:15pm An Efficient Data Structure for Groups (*The Ada Lovelace Room*)
  - 7:15-7:45pm Intersectionality in Tech: 'Racial' and Gender Bias in Algorithms (*The Ada Lovelace Room*)
  - 6:45-7:15pm An Unspoken Barrier to Computer Science Instruction (*The Hedy Lamarr Room*)
  - 7:15-7:45pm Improving Phishing Awareness Through Gamification Techniques (*The Hedy Lamarr Room*)
  - 6:45-7:15pm SafeCampus: Understanding Population Density Using Wifi Data (*The Anita Borg Room*)
  - 7:15-7:45pm Level Design for Body-based Controllers (*The Anita Borg Room*)
- 8:00-9:00pm** Breakout Session 3
  - 8:00-9:00pm BoF Male Allies (*The Ada Lovelace Room*)
  - 8:00-9:00pm Workshop: Interviewing, Negotiating Salary, and Networking with Confidence! (*The Fran Allen Room*)
  - 8:00-9:00pm Community Event: Maker Surprise! (*The Katherine Johnson Room*)
  - 8:00-8:30pm Designing Anti-Bias Interventions: Using Game Design to Support Empathy, Perspective-Taking, and Bias Reduction (*The Anita Borg Room*)
  - 8:30-9:00pm Understanding the Role of Information Management and Compliance with the FAIR Principles in the IoT-enabled Digital Learning Ecosystems (*The Anita Borg Room*)
- 9:00-10:00pm** Snack Break and Game Night (*The Mabel Addis Room*)

## Saturday, April 10

- 8:30-9:00am** Coffee Talk (*The Grace Hopper Room*)
- 9:00-10:00am** Breakout Session 4
  - 9:00-10:00am Panel: Thinking About Grad School? (*The Ada Lovelace Room*)
  - 9:00-11:00am Workshop: Rancher Developer Rodeo (*The Hedy Lamarr Room*)  
\*This workshop is two hours long
  - 9:00-10:00am Workshop: Well-Being During a Pandemic (*The Fran Allen Room*)
  - 9:00-9:30am Research Talk: Data Analysis on Impact of Cyber Incidents within Institutions Using VERIS Database (*The Anita Borg Room*)
  - 9:30-10:00am Research Talk: Shor's Algorithm Using Custom Quantum Gates (*The Anita Borg Room*)

- **10:15-11:15am** Breakout Session 5
  - 10:15-11:15am Workshop: Rancher Developer Rodeo (*The Hedy Lamarr Room*)  
\*This workshop is two hours long
  - 10:15-11:15am Workshop: A Mindfully Agile Path to Employability and Promotability (*The Fran Allen Room*)
  - 10:15-11:15am Community Event: Maker Surprise! (*The Katherine Johnson Room*)
  - 10:45-11:15am Research Talk: Analyzing Ethical Risks of Artificial Intelligence Empowered Products (*The Anita Borg Room*)
- **11:30am-12:45pm** Closing Remarks and Q&A with Jen Oneal from Blizzard Entertainment (*The Grace Hopper Room*)
- 1:00-3:00pm** Graduate School and Career Fair (*The Lynn Conway Room*)

## Welcome!

This has been quite a year. There are almost no words to describe the sadness, loss, solitude and fear of 2020. I want to tell you a little of what NYCWiC went through this past year.

We spent the first quarter of 2020 putting the finishing touches on our program, planning meals and engaging with speakers. And then like the rest of the world, COVID-19 rocked our world. The Organizing Team met almost nightly in early March 2020 to assess the future of NYCWiC'20. We grieved in April for the weekend that we were not together and we made plans, naively, to host NYCWiC'21 in Lake George. By June, it was clear that was also not going to be possible and we made a hard decision NOT to postpone for another year, but to offer our first virtual New York Celebration of Women in Computing, 10 years after launching the first NYCWiC.

We spent all fall trying to find ways to capture the “magic of NYCWiC” without being in the same space at the same time. Again, lots of hard decisions, but all with the goal of creating a space for YOU ALL to be WE. It also created some interesting opportunities and that is what we decided to focus on.

Grace Hopper said, “A ship in port is safe, but that’s not what ships are built for.” So we’re taking this NYCWiC ship out of the port and into the virtual.

The organizing team and sponsors are always amazing, but I need to give double thanks to everyone for planning and supporting two NYCWiCs and only getting the rewards of attending one. Quite simply, Thank you. We are a team that has always been virtual, but the stress of having the rest of our lives in the virtual has been hard. Thank you for sticking with NYCWiC in the ways that you all did.

This event is one of the many Celebrations of Women in Computing that is held under the auspices of ACM-W, the Association for Computing Machinery Council on Women in Computing. ACM-W’s mission is to support, celebrate, and advocate internationally for the full engagement of women in all aspects of the computing field. You are now part of this growing community of thousands of people worldwide who gather at these ACM-W events, from Canada to Cuba, from New Zealand to the Philippines and India, in the UK, Spain, Sweden, and all across the U.S.

But now, jump into the program. Make something. Learn something. Huddle up in a cone of silence. Take your ship out of the port and find some NYCWiC magic.

**Jennifer Goodall**  
NYCWiC 2021 General Chair



# KEYNOTE

**Friday 5:30-6:30pm**

*(The Grace Hopper Room)*



## The Influence of Shoes on My Journey as a Woman in the Tech Field

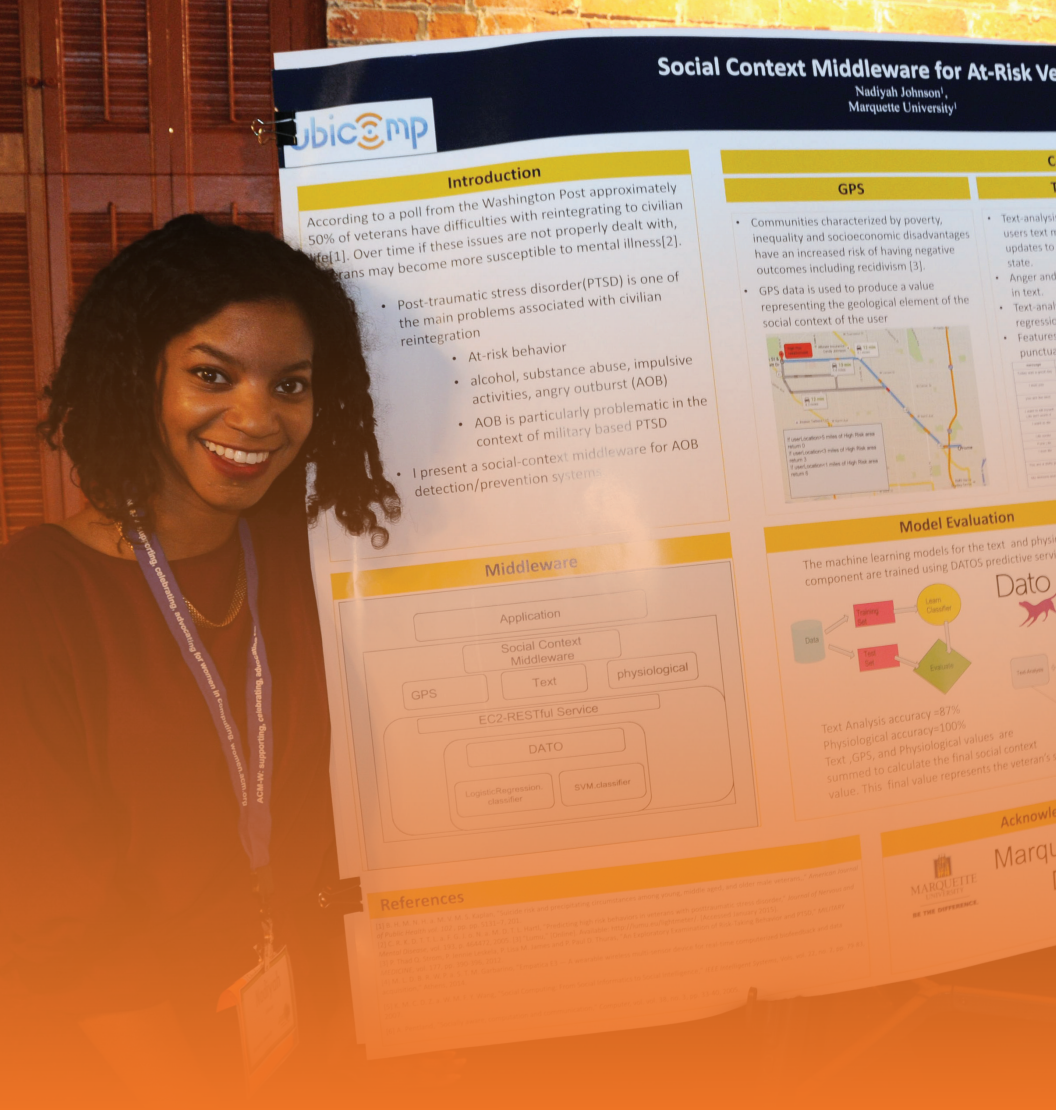
**Doris Conti**

*VP, IBM Public Cloud Release Manager*

Forced to study computer science by her father, Doris discovered that she loved technology and the possibilities it had on changing the world for the better. Through her career, she found roles in IBM that allowed her to make a difference on IBMers and IBM clients, and frankly, the world...all while raising her family. She's never looked back and knows her dad was right. Doris will share stories and pivotal points in her career, and how shoes played a role in her career decisions.

---

Doris is a technical VP at IBM, currently leading release management for IBM's Public Cloud. Doris has been with IBM for over 25 years, with roles on mainframe technology, file system development, storage, high performance computing, and now cloud. Her background is software development, and with that she has taken on a variety of roles including hw/sw development, release management, client support, performance, offering management and even strategy and marketing. Originally from Long Island, Doris lives in Poughkeepsie and is a very proud mother of 3. She is a graduate of Marist College with a B.S. and M.S. in Computer Science.



# Social Context Middleware for At-Risk Veterans

Nadiyah Johnson<sup>1</sup>,  
Marquette University<sup>1</sup>

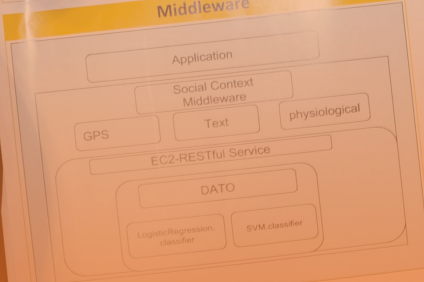


## Introduction

According to a poll from the Washington Post approximately 50% of veterans have difficulties with reintegrating to civilian life [1]. Over time if these issues are not properly dealt with, veterans may become more susceptible to mental illness [2].

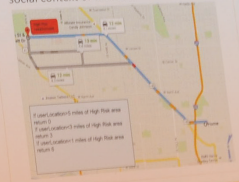
- Post-traumatic stress disorder (PTSD) is one of the main problems associated with civilian reintroduction
  - At-risk behavior
  - alcohol, substance abuse, impulsive activities, angry outburst (AOB)
  - AOB is particularly problematic in the context of military based PTSD
- I present a social-context middleware for AOB detection/prevention systems

## Middleware



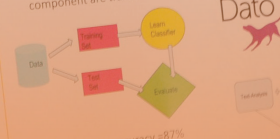
## GPS

- Communities characterized by poverty, inequality and socioeconomic disadvantages have an increased risk of having negative outcomes including recidivism [3].
- GPS data is used to produce a value representing the geographical element of the social context of the user



## Model Evaluation

The machine learning models for the text and physical component are trained using DATOS predictive service



Text Analysis accuracy=87%  
Physical accuracy=100%  
Text, GPS, and Physiological values are summed to calculate the final social context value. This final value represents the veteran's

## References

[1] U.S. VA, "VA Survey Shows 50% of Returning Servicemembers Struggle with Civilian Life, Study Shows," *Department of Veterans Affairs*, 2012, pp. 1-10.

[2] U.S. VA, "VA Survey Shows 50% of Returning Servicemembers Struggle with Civilian Life, Study Shows," *Department of Veterans Affairs*, 2012, pp. 1-10.

[3] U.S. VA, "VA Survey Shows 50% of Returning Servicemembers Struggle with Civilian Life, Study Shows," *Department of Veterans Affairs*, 2012, pp. 1-10.

Acknowledgements



# POSTER SESSION

Friday 3:00-4:00pm

Our Pro...  
We us...  
platform...  
and Social...  
expanded...  
workshop...  
students...  
interface...

# Poster Session, Friday 3:00-4:00pm

(The Megan Smith Room)

## Poster Number: 1

### Breaking Down Gender Barriers in STEM: Empowering Women in the Developing World Through Equity and Inclusion

*Elisabeth Dubois, 3rd year Ph.D. Student, University at Albany*

This study examines the gender gap in STEM by conducting a case study in a school in Cambodia, finding that strong marketing of STEM and equitable inclusion of women in STEM education, increases women's interests and confidence to pursue education and careers typically thought of as 'male-dominated'.

## Poster Number: 2

### Analyzing Networks on Home WiFi

*Reisha Puranik, Undergraduate, Marist College*

*Dr. Bowu Zhang, Assistant Professor Computing Technology, Marist College*

Home networks have long been a target of cyber adversaries. We collect and explore network flow streams, aiming to discover network vulnerabilities, and create security solutions that protect home networks from threats, including data filtering by ports, protocols, and services, advanced data encryption, data loss prevention on network devices.

## Poster Number: 3

### Solution to holding a COVID safe Ten80 RC race

*Anusha Tiwari, Undergraduate, University at Albany*

*Valerie Fullarton, Undergraduate, University at Albany*

*Jahnvi Bonagiri, Undergraduate, University at Albany*

Ten80 is an organization that needed to host a socially distanced RC car race while maintaining the excitement. Our research includes using Discord, a platform that helps maintain the social environment of the competition, and sensors that obtain the race data so that the teams could race safely from home.

## Poster Number: 4

### Digital Credentials: Student Ticket Sales Backed by IBM's Trusted Identity

*Brian Gormanly, Professor of Computer Science, Marist College*

*Mac Comeau, Undergraduate, Marist College*

*Stephon Tomlinson, Undergraduate, Marist College*

The Marist Ticket Service application serves a need for school trip tickets to be processed and managed by staff. Our application seeks to fulfil a use case invoking IBM's Trusted Identity platform to expedite ticket sales securely with student's digital credentials, enforced by Blockchain technology.

## Poster Number: 5

### Exploring Police Policy and Use of Force

*Anne Bowen, Ph.D., Texas Advanced Computing Center at The University of Texas at Austin*

*Andrew Solis, Texas Advanced Computing Center at The University of Texas at Austin*

*Carolyn Gonzalez, Undergraduate, Farmingdale State College*

In light of growing attention to police brutality in the United States, this study explored the connection between police reform policies and police-related violence in the US. While there has been limited research into fatal police encounters, there has yet to be research completed on the non-fatal police encounters.

**Poster Number: 6****An Efficient Data Structure for Groups***Akriti Dhasmana, Undergraduate, Union College**Matt Anderson, Department of Computer Science, Union College*

This data structure for mathematical groups is modelled on permutation decision diagrams. A concise representation of groups which are an element of abstract algebra can improve the speed and ease at which binary operations like taking union and intersection can be carried out on them. For the purpose of this project we will only consider infinite abelian groups which can be expressed as the direct product of cyclic groups using the fundamental theorem of finitely-generated abelian groups.

**Poster Number: 7****Reimagining: Suggestions For Increasing Data Visualization Usefulness Of Water Quality Data***S.O. Jeffcoat, 1st year Ph.D. Student, University at Albany*

Annually, the NYSDEC and the NYSFOLA generates a CSLAP Report summarizing water quality results provided by the NYS lake associations composed of volunteer citizens. After analyzing 5 years of CSLAP Scorecards, they were measured against the JPA Framework to determine public usability. A design for optimizing future data visualization is provided.

**Poster Number: 8****Finding Ore Using Artificial Intelligence and Machine Learning***Pranita Ramteke, Graduated (2020), Marist College**Bowu Zhang, Assistant Professor Computer Science, Marist College*

Finding Ore is an initiative to improve the course of mining world using Artificial Intelligence and Data Mining methods. This improvement in the process of finding ore from under-grounds will help in reducing accidents at the work fields along with reduction of pollutions generating due to the exploration process.

**Poster Number: 9****Cybersecurity Hive Plot Analysis using the Quantum Approximate Optimization Algorithm***Casimer DeCusatis, Professor of Computer Science, Marist College**DeAnna Singer, Undergraduate, Marist College*

In this research, we investigate a near term application of quantum computers for the quantum approximate optimization algorithm (QAOA). Specifically, we analyze cyberattack data from a honeynet represented as a hive plot, to sandbox network nodes affected by a distributed denial of service (DDoS) attack from those who remain unaffected.

**Poster Number: 10****Unmasking the conversation on masks: Natural language processing for topical sentiment analysis of COVID-19 Twitter discourse***Rufeng Ma, 2nd year Graduate Student, Rensselaer Polytechnic Institute**Rachael C. White, Undergraduate, Rensselaer Polytechnic Institute*

In this study, we scrutinize over one million tweets collected between March and July 2020 to explore public attitudes towards mask usage during the COVID-19 pandemic. We find that topic clustering, sentiment analysis and visualization of mask-related Twitter data offers revealing insights into societal perceptions of techniques for COVID-19 prevention.



## Poster Number: 11

### Cyber 9.12 Competition Experience

*Evelyn Cuautle Suárez, Graduate Student, University at Albany*

Periodically, the Atlantic Council hosts a Cyber 9.12 Strategy Challenge competition for students across the globe. This competition is policy based where a team of students tackle a fictional cyber incident. Miss Cuautle Suárez had the opportunity to compete twice in 2020 and is delighted to share her experience.

## Poster Number: 12

### An Abstract in Datacenter Maintenance and Operations

*Craig Maitner, Undergraduate, Marist/IBM Joint Study program*

*Derek Reid, Undergraduate, Marist/IBM Joint Study program*

The Enterprise Computer Research Laboratory at Marist College is a research facility that is used to showcase today's technology and how it can make our lives easier. The machines in the datacenter support a wide range of computer courses at Marist and provides students with a platform to contribute to research and gain hands-on experience with modern technologies that are used out in the workplace.

## DIVERSITY POSTERS

### Poster Number: 13

#### Reinstating a Women in Computing College Student Club in the Midst of the Global COVID19 Pandemic

*Sindhu Padaga, Undergraduate, Farmingdale State College (SUNY)*

*Safia Khurshed, Undergraduate, Farmingdale State College (SUNY)*

*Maria Jurado, Undergraduate, Farmingdale State College (SUNY)*

*Salma Abdeltawab, Undergraduate, Farmingdale State College (SUNY)*

*Simrah Malik, Undergraduate, Farmingdale State College (SUNY)*

*Rita Moreno, Graduated (2020), Farmingdale State College (SUNY)*

*Emily Stock, Graduated (2020), Farmingdale State College (SUNY)*

*Mary Villani, Associate Professor, Farmingdale State College (SUNY)*

*Dr. Ilknur Aydin, Associate Professor, Farmingdale State College (SUNY)*

The Supporting Women in Computing Club has been reinstated from its inactive status despite being in the midst of a global pandemic. With no prior experience leading a student organization under ordinary circumstances, SWiC officers had to adapt and learn quickly to operate and overcome challenges due to the pandemic.

### Poster Number: 14

#### Get Girls Coding: Why Early Adolescent Exposure to Computer Science MATTERS

*Eric Zair, Undergraduate, SUNY Potsdam*

*Alexander Mulcock, Undergraduate, SUNY Potsdam*

*Emma Morse, Undergraduate, SUNY Potsdam*

*Megan Ponce, Undergraduate, SUNY Potsdam*

*Katie Watson, Undergraduate, SUNY Potsdam*

*Rachel Stannard, Undergraduate, SUNY Potsdam*

*Bastien Gliech, Undergraduate, SUNY Potsdam*

*Sarah Stannard, Undergraduate, SUNY Potsdam*

*Nick Dombroski, Undergraduate, SUNY Potsdam*

*Jasmine McClendon, Undergraduate, SUNY Potsdam*

*Saira Herrera, Undergraduate, SUNY Potsdam*

Socioeconomic disparities in adolescence lead to eventual gender imbalance and lack of diversity in the workplace. ACM-W will create a coding workshop aimed towards children, interview women within the field, and identify a correlation between early exposure to computer science and the percentage of women who later pursue the discipline.



# BREAKOUT SESSIONS

## **Breakout Session 1**

**Friday, 4:15-5:15pm**

---

## **Breakout Session 2**

**Friday, 6:45-7:45pm**

---

## **Breakout Session 3**

**Friday, 8:00-9:00pm**

---

## **Breakout Session 4**

**Saturday, 9:00-10:00am**

---

## **Breakout Session 5**

**Saturday, 10:15-11:15am**

## Breakout Session I, Friday 4:15-5:15pm

(The Ada Lovelace Room)

### Panel

#### My Job is so Cool

*Tina M. Tarquinio, Director, IBM Z, IBM*

*Quinn Miller, Production Coordinator, Velan Studios*

*Temitope Akinyemi, Chief Privacy Officer, NYS Education Department*

*Mary Sharif, Security Architect, Cisco Systems*

**MODERATOR:** *Nancy Kreis, Training Coordinator, CEHC, University at Albany*

Folks working in different computing-related roles will explain why their jobs are so cool and talk about the career paths that led them to their current positions. Come to this panel to get a glimpse of the variety of computing careers and career paths.

(The Hedy Lamarr Room)

### Birds of a Feather

#### Learning and Sharing from the Decade Long Journey of Success and Failures on Women in Computing Initiatives at Farmingdale State College

*Dr. Mary Villani, Associate Professor, Computer Systems Department, Farmingdale State College (SUNY)*

*Dr. Ilknur Aydin, Associate Professor, Computer Systems Department, Farmingdale State College (SUNY)*

FSC started various initiatives to support women in its CPIS program. After careful analysis of these decade long initiatives, much is learned. Join us to listen to our story and share yours of what worked and what didn't in achieving equilibrium in gender enrollment, engagement, and retention in computing programs.

(The Mary Keller Room)

### Workshop

#### Resumé Critique

This session allows students from all years who are seeking professional feedback on their resume to speak with an employer representative. Students can take advantage of this opportunity to share their resume with professionals and receive valuable advice on how to highlight their skills and experience to get noticed by employers. Critiques are conducted by Zoom, so students should have an electronic resume available to share through Zoom screen sharing.

(The Katherine Johnson Room)

### Community Event

#### All Level Yoga and Meditation

*Jami L. Cotler, Associate Professor of Computer Science, Siena College*

Through a variety of gentle asanas, breathwork and meditation take some time to collect the mind, awaken the spine, soften the shoulders, open our hips and slowly quiet our bodies and minds.

(*The Anita Borg Room*)

## Research Talk

### Information Privacy: A Review of Levels of Analysis and Theories in IS

*Thora Knight, Information Science Ph.D. Candidate, University at Albany*

Organizations and people are increasingly relying on technologies that require vast amounts of personal data to function. Within the information science field, the information systems (IS) domain has played a leading role in exploring individual information privacy concerns stemming from emerging technologies. To develop a multilevel theoretical framework, this paper seeks to answer the question: what factors link the individual, organizational and societal levels of analysis in IS literature? To answer this question, the author reviewed IS literature to understand how studies evolved across three levels of analysis, focusing on research streams, theoretical/conceptual frameworks, and accompanying theories.

### Toward a Sufficient Unified Ethical Framework for AI: Challenges & Opportunities

*Jesse Parent, Assistant Scientist, Orthogonal Research & Education Laboratory, (USA)*

*Krishna Katyal, Undergraduate, Shri Mata Vaishno Devi University, (Katra, Jammu and Kashmir)*

*Shruti Raj Vansh Singh, Undergraduate, Shri Mata Vaishno Devi University, (Katra, Jammu and Kashmir)*

*Erin Higgs, Undergraduate, University of Nevada-Reno, (USA)*

*Minh Tran, Associate Researcher, Orthogonal Research & Education Laboratory, (USA)*

*Daniela Cialfi PhD, Ph.D., Post-Doc, University of Chieti-Pescara, (Italy)*

*Bradly Alicea PhD, Ph.D., Head Scientist, Orthogonal Research & Education Laboratory (USA)*

As artificial intelligence and automation of critical decision making becomes more ubiquitous, society's need for systematic attempts to guide responsible engagement and implementation of these tools deepens. But in a world of preexisting and diverse approaches to ethics and culture already, how can we strive towards a coherent framework to guide the rapid advances in AI? This is no trivial task, but to make headway on this path, we will discuss key concepts influencing the development of ethical AI frameworks, including: the relationship between technology implementation and lagging law updates; the trouble of "neutrality"; historical influences and impacts on norms; automated decision-making; and examination of what broad values can guide a framework for the 21st century. Our aim will be to lay out an overview of the challenges of developing a coherent ethical framework, note challenges for buy-in and implementation, and make suggestions of fruitful areas of further research.

## Breakout Session 2, Friday 6:45-7:45pm

### First Timers Research Talks

(*The Ada Lovelace Room*)

#### An Efficient Data Structure for Groups

*Akriti Dhasmana, Undergraduate, Union College*

*Matt Anderson, Visiting Assistant Professor, Union College*

This data structure for mathematical groups is modelled on permutation decision diagrams. A concise representation of groups which are an element of abstract algebra can improve the speed and ease at which binary operations like taking union and intersection can be carried out on them. For the purpose of this project we will only consider infinite abelian groups which can be expressed as the direct product of cyclic groups using the fundamental theorem of finitely-generated abelian groups.

## Intersectionality in Tech: 'Racial' and Gender Bias in Algorithms

*Araba Ocran, Undergraduate, University at Albany*

Gender and race influence/amplifies racial and gender-based discrimination in the use of technology. Such biases hold true social consequences that threaten the livelihoods of women in marginalized racial groups. Previous studies concur identical conclusions that the tech industry needs to actively involve racially diverse women in machine learning algorithms sectors.

### (The Hedy Lamarr Room)

#### An Unspoken Barrier to Computer Science Instruction

*Elizabeth Thomas-Cappello, Teacher, Newburgh Free Academy & ECHS Marist/  
Newburgh Partnership Program*

The push for Computer Science instruction in schools neglects a barrier to student success. By comparing ELA results in an Introduction to CS course, it was found the higher the ELA score, the more successful the student. By examining the importance of reading skills, students who struggle can be more successful in a computer science classroom.

#### Improving Phishing Awareness Through Gamification Techniques

*Eleni Kokoris, Undergraduate, Adelphi University*

*Kees Leune, Assistant Professor of Computer Science, Adelphi University*

Gamification has been proven to make non-game contexts more engaging for participants and could help train people to recognize phishing attacks at a pace to better match their skill level. This research will test if awareness improvements can be made through the combination of a phishing simulation and gamification elements. By tracking email features and user actions, points are awarded or deducted from their score, which determines the difficulty and frequency of the next phish they receive.

### (The Anita Borg Room)

#### SafeCampus: Understanding Population Density Using WiFi Data

*Chuoqi Chen, Undergraduate, Rensselaer Polytechnic Institute*

*Mia Mayerhofer, Undergraduate, Rensselaer Polytechnic Institute*

*Roma Paranjpe, Undergraduate, Rensselaer Polytechnic Institute*

*Christina van Hal, Undergraduate, Rensselaer Polytechnic Institute*

*Ruoyi Zhan, Undergraduate, Rensselaer Polytechnic Institute*

*John S. Erickson, Director of Research Operations, Institute for Data Exploration and Applications, Rensselaer Polytechnic Institute*

*Kristin P. Bennett, Professor and Associate Director, Institute for Data Exploration and Applications, Rensselaer Polytechnic Institute*

Reopening universities while keeping students, faculty, and staff safe has become a critical problem during the COVID-19 pandemic. Given the nature of this virus, many people feel uncomfortable, unsafe, or unable to go about their daily routines. This issue has driven our research group to develop a technological solution in efforts to provide a useful tool for making COVID-19 related decisions. The SafeCampus web application is an open-source project designed to identify congestion and population density around the Rensselaer Polytechnic Institute (RPI) campus based on near-real time WiFi data from wireless access point (WAP) devices.

## Level Design for Body-based Controllers

*Dr. Karen Schrier, Director of the Games & Emerging Media program, Marist College*  
*Marinel Tinnirello, Undergraduate, Marist College*

This study is meant to aid in the abstraction of Level Design for various controllers, while also expanding and simplifying the idea of non-traditional, body-based controllers, allowing for such devices to be accessible for others to use. We hope to compare and contrast our findings with those in existing literature.

## Breakout Session 3, Friday 8:00-9:00pm

*(The Ada Lovelace Room)*

### *Birds of a Feather*

#### **Male Allies**

*Mark Abrams, Field Engineer-Edge Specialist, SUSE*

Birds of a Feather sessions provide a space for people who share common experiences and goals. In this session the moderator will lead a conversation about what it means to be a male ally. We encourage attendees to come and share their experiences.

*(The Fran Allen Room)*

### *Workshop*

#### **Interviewing, Negotiating Salary, and Networking with Confidence!**

*Megan Ermalowicz, Talent Acquisition Manager, Alaant Workforce Solutions*

It can be daunting when it comes to interviewing. I want to show candidates how to highlight their qualities to help them feel more confident, especially when negotiating their salary! I will be discussing tips and tricks on the importance of networking and how to leverage various platforms.

*(The Katherine Johnson Room)*

### *Community Event*

#### **Maker Surprise!**

*Marinel Tinnirello, Undergraduate, Marist College*  
*George Berg, Associate Professor, University at Albany*

Bring your NYCWiC box. The rest is a surprise!

(The Anita Borg Room)

### Research Talk

#### Designing Anti-Bias Interventions: Using Game Design to Support Empathy, Perspective-Taking, and Bias Reduction

*Karen Schrier, Associate Professor, Games & Emerging Media, Marist College*

We often hear about how games and game communities are less welcoming toward women and other marginalized groups. And for good reasons, as games, academic game programs, and game companies, just like other social communities, need to be more inclusive and supportive places. In this research study, I investigated ways to better support the games community to build empathy and reduce bias. To do this, I looked at whether the process of making games (rather than just games themselves) may help people to explore their own and others' identity, take on new perspectives, and reduce their biases.

#### Understanding the Role of Information Management and Compliance with the FAIR Principles in the IoT-enabled Digital Learning Ecosystems

*Claudia-Melania Chituc, Leibniz Institute for Research and Information in Education.*

The diversity of computer systems, data and data models in the IoT-enabled Digital Learning Ecosystems, the richness of metadata descriptions, and the need for big data analytics require ensuring information management and interoperability. This research talk focuses on approaches for information management and challenges for compliance with the FAIR principles.

## Breakout Session 4, Saturday 9:00-10:00am

(The Ada Lovelace Room)

### Panel

#### Thinking About Grad School?

*Emma Talis, Ph.D. Student, Applied Mathematics & Statistics, Stony Brook University*

*Jesse Parent, Assistant Scientist, Orthogonal Research & Education Laboratory*

*S.O. Jeffcoat, 1st year Ph.D. Student, Information Science, University at Albany*

*Stephanie Barnes, Graduate Student, Excelsior College*

**MODERATOR: Terry Merz, DCS, CISSP, CISM: Senior Research Scientist,  
Pacific Northwest National**

What is grad school like? Why should I go to grad school? How do I get into grad school? Panelists will use their own experience to help any questions that students might have about applying and attending graduate school.

(The Hedy Lamarr Room)

### Workshop 9:00-11:00am

#### Rancher Developer Rodeo

*Mark Abrams, Field Engineer-Edge Specialist, SUSE*

The Rancher Developer Rodeo is a technical, hands-on workshop designed to teach application developers best practices around docker and Kubernetes. Each participant will be given access to a virtual machine in the cloud during the workshop to facilitate learning and interactivity.

## (The Fran Allen Room)

### Workshop

#### Well-Being During a Pandemic

*Cathy Parker, Associate Director, Office of Career and Professional Development, University at Albany*

When we talk about wellbeing, we are usually referring to physical and mental health. Gallup Inc. has done a lot of research in the area of wellbeing and their definition includes 5 specific areas, Career, Social, Financial, Physical, and Community Wellbeing. We all know wellbeing is important, especially during a pandemic but the pandemic itself create barriers to our wellbeing. This presentation will look at the five areas of wellbeing, with a special focus on Career Wellbeing. We will discuss the obstacles to wellbeing during a pandemic and the ways to reframe our situation to find creative ideas for improving our wellbeing.

## (The Anita Borg Room)

### Research Talk

#### Data Analysis on Impact of Cyber Incidents within Institutions Using VERIS Database

*Melissa Portalatin, Undergraduate, University at Albany*  
*Unal Tatar, Assistant Professor, University at Albany*

The imperative factors of cybersecurity within institutions have become most prevalent due to the rise of cyber-attacks. Cybercriminals strategically choose their targets and develop the use of several different techniques and tactics that are used to exploit vulnerabilities throughout an entire institution. With these concerns on the rise, we found contributing factors with the use of a risk-based approach and thorough analysis of databases, that will be used to improve the practical consensus of cybersecurity. Our findings can be of use to all institutions in search of useful insight, to better their risk-management planning skills and failing elements of their cybersecurity.

#### Shor's Algorithm Using Custom Quantum Gates

*Dr. Casimer DeCusatis, Assistant Professor of Information Technology and Systems, Marist College*  
*Emily McGettrick, Undergraduate, Marist College*

Once quantum computers with a sufficient number of qubits are available, Shor's algorithm, a factoring algorithm, will be able to break public-private RSA encryption. In this paper, we discuss a near-term implementation of Shor's Algorithm on IBM Q System One quantum computer using custom controlled rotation gates.

## Breakout Session 5, 10:15-11:15am

### (The Hedy Lamarr Room)

#### Workshop, 9:00-11:00am

#### Rancher Developer Rodeo Part 2\*

*Mark Abrams, Field Engineer-Edge Specialist, SUSE*

The Rancher Developer Rodeo is a technical, hands-on workshop designed to teach application developers best practices around docker and Kubernetes. Each participant will be given access to a virtual machine in the cloud during the workshop to facilitate learning and interactivity.

\*You need to attend part 1 of this workshop to be eligible to attend part 2



## (The Fran Allen Room)

### Workshop

#### A Mindfully Agile Path to Employability and Promotability

*Jami L. Cotler, Associate Professor of Computer Science, Siena College*

Employability skills are often used interchangeably with work-readiness or soft skills. To be work-ready one has to possess attributes sought by employers to fulfil a given position. The accumulation of skills, knowledge and personality traits make up employability. Kiss, Barker and Singh (2019) complemented this with the notion of willingness and claim that students ought to be willing to utilize the support offered by the institution to enhance their employability while undertaking their tertiary studies. ManpowerGroup (2019) publishes regular updates on the job market characteristics. According to their observation, employers are looking for job-ready and not grad-ready candidates. The most significant factor that can distinguish employable graduates from non-employable individuals is the concept of learnability. This entails the willingness to learn and grow and get beneath the surface. This interactive and discussion-based workshop will explore ways to enhance personal employability and promotability in the tech sector.

## (The Katherine Johnson Room)

### Community Event

#### Maker Surprise!

*Marinel Tinnirello, Undergraduate, Marist College*

*George Berg, Associate Professor, University at Albany*

Bring your NYCWiC box. The rest is a surprise!

## (The Anita Borg Room)

### Research Talk

#### Analyzing Ethical Risks of Artificial Intelligence Empowered Products

*Bariela Capollari, Undergraduate Student, University at Albany*

*Thora Knight, Ph.D. Candidate, University at Albany*

*Unal Tatar, Assistant Professor, University at Albany*

Artificial Intelligence (AI) is being applied to our lives through different forms and transforms society. This study aims to create a benchmarking tool to assess to what extent ethical principles are adopted in an AI-empowered product. We identified four factors as indicators of ethicality: fairness, accountability, sustainability, and transparency.



# CLOSING REMARKS, Q&A

**Saturday, 11:30am-12:45pm**

*(The Grace Hopper Room)*



**Jen Oneal**

*Executive Vice President, Development, Blizzard Entertainment*

As an executive vice president of development at Blizzard Entertainment, Jen Oneal is a key member of Blizzard's executive leadership team, where she ensures that development goals and values are prioritized in all company decisions. This involves marshaling the efforts of multiple teams, managing complex production processes, and making sure Blizzard's developers have the focus and support required to continue delivering epic experiences to players.

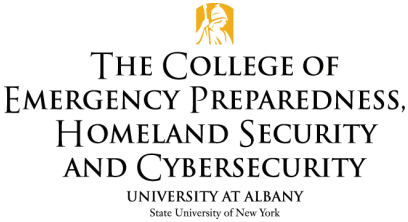
Most recently, Jen held the role of studio head for Vicarious Visions, the renowned game development studio working on *Diablo II: Resurrected*—the highly anticipated remastering of one of the most critically acclaimed games of all time. Now an internal Blizzard Entertainment studio based out of Albany, NY, Vicarious Visions was previously empowered by Jen's leadership to deliver the definitive remaster of *Tony Hawk's Pro Skater 1 + 2*, which went on to become the fastest-selling game in franchise history. Other past Vicarious Visions efforts include the award-winning *Crash Bandicoot N. Sane Trilogy*, *Marvel: Ultimate Alliance 2*, *Destiny 2*, and numerous games in the best-selling *Skylanders* and *Guitar Hero* franchises.

Working her way up from her beginnings as an associate producer 18 years ago, Jen has amassed extensive experience in a variety of production and leadership roles. After collaborating with Blizzard Entertainment for several years, Jen officially joined Blizzard in her current role in 2021, alongside the Vicarious Visions and Blizzard Entertainment studio merger.

Jen holds a Bachelor of Arts degree from the University of Florida and an MBA from the University of Southern California. Her steadfast focus on building a positive, inclusive culture earned her the 2018 Great Place to Work for All Leadership Award.

## PLATINUM LEVEL SPONSORS

---



## GOLD LEVEL SPONSORS

---



## SILVER LEVEL SPONSORS

---



## BRONZE LEVEL SPONSORS

---



## ADVOCATE LEVEL SPONSORS

---



## ORGANIZING COMMITTEE

*Jennifer Goodall, University at Albany*  
*Caroline Buinicky, Emma Willard School*  
*Pablo Rivas, Baylor University*  
*Chris McEvoy, Velan Studios*  
*Michael Leczinsky, University at Albany*  
*Quinn Miller, Velan Studios*  
*Catherine Parker, University at Albany*  
*Cynthia Worrad, Marist College*

---

## SPECIAL THANKS

*Grace Begany, State University of New York at Cobleskill*  
*Kimberly Cornell, The College of St. Rose*  
*Richard Marcoux, SUNY Morrisville*  
*Andy Xu, University at Albany*  
*Savannah Crouch, University at Albany*  
*Mark Abrams, SUSE*  
*Amoreena O'Bryon, Graphic Design*