

Kimberly A. (Gero) Cornell

1400 Washington Avenue

Albany NY 12222

kacornell@albany.edu

518-956-8129

Education

Ph.D. Computer Science minor Mathematics, University at Albany,

Dissertation Title: Deciding Static Inclusion for Δ -Strong and $\omega\nabla$ -Strong Intruder Theories:

Applications to Cryptographic Protocol Analysis

Advisor: Dr. Paliath Narendran

Received August 15, 2015

M.S. Computer Science, University at Albany,

Thesis Title: Elementary Unification Modulo List Length

Advisor: Dr. Paliath Narendran

Received December 21, 2013

B.S. Computer Science minor Mathematics, University at Plattsburgh - SUNY, *magna cum laude*,

Advanced Honors Research Project Title: Software for Tutorial and Tests on Discrete Mathematics topics

Advisor: Dr. Jan Plaza

Received May 15, 2010

Research Interests

- **Cybersecurity**
 - Cryptographic Protocol Analysis
 - Formal Verification of Software and Cryptographic Protocols
 - Automated Deduction and Automated Reasoning in Cybersecurity
 - Security and Privacy in Gaming
- **Artificial Intelligence**
 - AI for Cybersecurity
 - AI in Cyber-Physical Systems (Digital Twins)
- **Quantum Computing**
 - Post-Quantum Cryptography
 - Benchmarking Quantum Computing with Classical Computing
 - Assessment of NP-Hard Problems in Quantum Computing

Professional Career

University at Albany, College of Emergency Preparedness, Homeland Security, and Cybersecurity, Department of Information Sciences and Technology, 2022-present

- **Assistant Professor, 2022-present.** Courses:

1. CINF 108 Programming for Problem Solving (Fall 2022, Spring 2023, Fall 2023, Fall 2024).
2. CINF 308 Programming for Informatics (Spring 2023, Spring 2023, Spring 2024, Spring 2025).
3. CINF 311 Honors Thesis Preparation (Seminar) (Fall 2024, Spring 2025)

4. CEHC 391 Research Internship EP, HS & C (Practicum, Field, or Clinical Exp) (Fall 2024)
5. CINF 405 Advanced Concepts and Practices in Software Development (Fall 2023, Spring 2024, Fall 2024, Spring 2025).
6. CINF 466 Ind Research Informatics (Research) (Spring 2025)
7. CINF 475 Honors Thesis Proposal Seminar (Spring 2023, Fall 2024, Spring 2025).
8. CINF 476 Honors Thesis (Fall 2023, Spring 2024).
9. CIST 678 Internship Information Science (Practicum, Field, or Clinical Exp) (Summer 2024, Fall 2024, Spring 2025)
10. CINF 894 Direct Rdgs Info Sci (Spring 2023, Spring 2025)
11. CINF 897 Indep Stdy & Research (Independent Study) (Fall 2024, Spring 2025)
12. CINF 899 Doctoral Dissertation (Thesis Research) (Fall 2024, Spring 2025)

o **The College of Saint Rose, School of Mathematics and Sciences, 2015-2022**

o **Tenured Associate Professor of Computer Science 2021-2022.**

o **Assistant Professor of Computer Science, 2015-2021.**

- o I was part of a small task force responsible for developing a new Cybersecurity major. I helped design the curriculum and wrote course descriptions for the new major. Additionally I teach courses in this major.
- o I was part of a task force that was responsible for developing a new Computer Science Masters degree program. I helped design the curriculum and I teach courses in this degree program.

Courses:

1. CSC 111 Introduction to Computer Science (Fall 2015, Spring 2016, Fall 2019).
2. CSC 112 Art and Science of Computer Graphics (Fall 2016).
3. CSC 112 Fundamentals of Computer Science (Fall 2021).
4. CSC 252 Problem Solving with Java (Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Fall 2020, Spring 2021, Fall 2021).
5. CSC 317 Forensic Computing (Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021).
6. CSC 338/538 System Administration (Fall 2017, Fall 2018, Spring 2021) (developed and created new course for the college).
7. CSC 434 Software Engineering (Spring 2017, Spring 2018, Spring 2019, Spring 2021).
8. CSC 462/562 Cybersecurity and Cryptography (Spring 2016, Spring 2017, Spring 2019, Spring 2021) (developed and created new course for the college).
9. CSC 433/564 Programming Languages (Fall 2016, Spring 2018, Fall 2019, Fall 2020, Fall 2021) (CSC564 developed and created new course for the college).
10. CSC 506 Advanced Programming (Spring 2018, Fall 2018 Spring 2019, Fall 2019, Fall 2020, Fall 2021).
11. CSC 507 Software Engineering (Fall 2015, Spring 2016).
12. CSC 499 Undergraduate Independent Studies
 - (a) Fall 2015 - Software Engineering (3 students)
 - (b) Fall 2016 - Algorithms
 - (c) Fall 2017 - Programming Languages
 - (d) Spring 2018 - Cyber Security Frameworks
 - (e) Spring 2018 - Trends in Video/Electronic Games
 - (f) Summer 2018 - Programming Languages
 - (g) Fall 2018 - Programming Languages
 - (h) Spring 2019 - Forensic Computing

- (i) Spring 2019 - Programming Languages
 - (j) Spring 2019 - Cryptography
 - (k) Fall 2019 - Computer Forensics
 - (l) Fall 2021 - Advanced Cryptography
 - (m) Fall 2021 - Advanced Software Engineering
13. CSC 598 Graduate Independent Studies
- (a) Spring 2018 - Cybersecurity and Cryptography
 - (b) Spring 2019 - Advanced Software Engineering

Office of Naval Research (ONR), 2014

Graduate Student Intern (Summer 2014)

Naval Research Enterprise Internship Program (NREIP)

Topic: Symmetric and asymmetric unification for cryptographic protocol analysis

Supervisor: Dr. Catherine Meadows

Head Formal Methods Section

Center for High Assurance Computer Systems

Naval Research Laboratory

Publication: Serdar Erbatur, **Kimberly A. Gero**, Andrew M. Marshall, Catherine Meadows, and Paliath Narendran. Unification modulo a Theory of Pairing and Encryption. In Santiago Escobar and Mateu Villaret, editors, *UNIF 2015, 29th International Workshop on Unification*, 2016. <http://users.dsic.upv.es/~sescobar/unif15-proceedings.pdf>

University at Albany - SUNY, 2010 - 2015

Instructor of Record

Course:

1. CSI 210 Discrete Structures (Summer 2013).

Graduate Teaching Assistant

Courses:

1. CSI 538 Computational Logic (Spring 2015).
2. CSI 519 Advanced Programming Concepts (Fall 2013 and Fall 2014).
Course instructor for three weeks in Fall 2014.
3. CSI 409 Automata and Formal Languages (Fall 2013 and Fall 2014).
Course instructor for three weeks in Fall 2014.
4. CSI 426/526 Cryptography (Spring 2014).
5. CSI 418/518 Software Engineering (Spring 2012 and Spring 2013).
Lab Instructor
6. CSI 210 Discrete Structures (Fall 2012).
Discussion Leader
7. CSI 310 Data Structures (Summer 2012).
8. CSI 201 Introduction to Computer Science (Summer 2011 and Fall 2011).
Lab Instructor

Tutor

1. Tutored Computer Science and Information Science courses (Fall 2010 - Spring 2011).
Tutored 20 hours per week

Graduate Research Assistant

Adviser Dr. Narendran (Summer 2012, Summer 2013)

National Science Foundation Grant CNS 09-05286

Topic: “Collaborative Research: Unification Laboratory: Increasing the Power of Cryptographic Protocol Analysis Tools”

University of Wisconsin Oshkosh, 2009

Research Experience for Undergraduates

National Science Foundation Research Experience for Undergraduates Site Award 0851569

Student Researcher (Summer 2009)

Topic: Creating algorithm visualization software on recursion.

Advisers Dr. Thomas L. Naps and Dr. David Furcy

Poster presentation at Consortium for Computing Sciences in Colleges Midwest Region 2009

University at Plattsburgh - SUNY, 2008 - 2010

Undergraduate Teaching Assistant

Courses:

1. CSC 121 Introduction to Computing and the Web (Spring 2008).
2. CSC 221 Introduction to Computer Science (Fall 2009).

Undergraduate Tutor:

Computer Science and Mathematics courses

Grants

1. Submitted a proposal titled "Counter-Hacking Scammers: Ethical Hacking Techniques to Infiltrate and Disrupt Scammer Operations" to The Minerva Center Innovation Funding for Research & Creative Endeavors at the University at Albany. The grant is for \$7,200 to fund 3 undergraduate student researchers. Funded for the Spring 2024 semester (Funded).
2. Submitted a proposal titled "Establishing a Secure Cloud Cyber Range for Cybersecurity Research" to The Minerva Center Innovation Funding for Research & Creative Endeavors at the University at Albany. The grant is for \$4,800 to fund 2 undergraduate student researchers during the Spring 2024 semester (Funded).
3. Submitted an Amazon Research Award proposal titled "Malla Observatory: Establishing a Collaborative LLM Research Infrastructure" as Principal Investigator. The grant is for \$79,659 (Total Cash Budget) + \$40,000 (AWS Promotional Credits). Submitted May 2024 (declined).
4. Submitted an NSF grant proposal for a Research Experience for Teachers (RET) Site titled "RET Site: (AI-EPIC) The AI-Ready Educators in Practice and Integrative Challenges of AI" as senior personnel. The grant is for \$597,621. Submitted February 2024 (declined)
5. Resubmitted an NSF grant proposal for a Research Experience for Undergraduates (REU) Site titled "REU Site: Interdisciplinary Science for Integrative Challenges in Cybersecurity (ISICC)" as senior personnel. The grant was for \$462,921. Submitted September 2023 (declined)
6. Submitted an NSF grant proposal for a REU Site titled "REU Site: Interdisciplinary Science for Integrative Challenges in Cybersecurity (ISICC)" as senior personnel. The grant was for \$384,210. Submitted September 2022. (declined)
7. Resubmitted an NSF grant proposal for S-STEM titled "Innovations in Mentoring for Math and Computer Science" (IMMCS) as **PI**. The objective of this grant is to retain 90% of STEM students coming from low income families that are in the program. This grant is a STEM (Science, Technology, Engineering, and Math) initiative that was for \$649,108, most of which would be used for scholarships for students in the mentoring program. Co-Pis were Dr. Christina Pfister (The College of Saint Rose) and Dr. Christa Deno (The College of Saint Rose) (declined)
8. Submitted an NSF grant proposal for S-STEM titled "Innovations in Mentoring for Math and Computer Science" (IMMCS) as **PI**. The objective of this grant is to retain 90% of STEM students coming from low-income families that are in the program. This grant is a STEM initiative that, if received, will

bring in \$639,193, most of which would be used for scholarships for students in the mentoring program. Co-Pis were Dr. Mark Gilder (The College of Saint Rose) and Dr. Christa Deno (The College of Saint Rose) (declined)

9. Submitted an NSF grant proposal to Software & Hardware Foundation as **PI** titled “Combination in Equational Reasoning with Applications to Formal Verification. Co-Pis were Dr. Christopher Lynch (Clarkson University), Dr. Andrew Marshall (University of Mary Washington), and Dr. Paliath Narendran (University at Albany, SUNY). (declined)

Publications

Refereed Publications

1. **Kimberly A. Cornell** and Li Huang. Public-private defense for satellite cybersecurity: Addressing challenges through collaboration. In *Proceedings of the European Interdisciplinary Cybersecurity Conference (EICC 2025)*, Springer Communications in Computer and Information Science (CCIS), Inria, Rennes, France, 2025. Under review
2. Li Huang and **Kimberly A. Cornell**. Cybersecurity investments: The impact of interdependent risks and cyber insurance. In *Proceedings of the European Interdisciplinary Cybersecurity Conference (EICC 2025)*, Inria, Rennes, France, 2025. Under review
3. Olivia Benaoumeur and **Kimberly A. Cornell**. Officeguard: Game-based learning in cybersecurity education for first-year college students. In *29th Annual Conference of the Consortium for Computing Sciences in Colleges Northeast Region (CCSCNE 2025)*, 2025. Under review
4. Amanda Fernandez, David Patrick, Mauricio Gomez, and **Kimberly A. Cornell**. Incorporating llm activities into established cs1 curriculum: An experience report. In *29th Annual Conference of the Consortium for Computing Sciences in Colleges Northeast Region (CCSCNE 2025)*, 2025. Under review
5. Zümüt Akçam, **Kimberly A. Cornell**, Daniel S Hono, II, Paliath Narendran, and Andrew Pulver. On problems dual to unification: The string-rewriting case. *Logical Methods in Computer Science (Under Review)*, 2024
6. Li Huang and **Kimberly A. Cornell**. Cyber protection strategies: Balancing insurance and security. In *Proceedings of the 20th International Conference on Cyber Warfare and Security (ICWS)*, William & Mary Law School, Williamsburg, Virginia, U.S.A., March 2025. Forthcoming
7. Thilanka Munasinghe, Phung Lai, Jennifer Wei, James Hendler, and **Kimberly A. Cornell**. Assessment of quantum machine learning applicability for climate actions: Comparison of the variational quantum classifier and the quantum support vector classifier with classical machine learning models. In *2024 IEEE International Conference on Big Data (BigData)*, December 2024. Forthcoming
8. Lakshika Vaishnav, Sakshi Singh, and **Kimberly A. Cornell**. The hidden dangers of publicly accessible llms: A case study on gab ai. In *15th EAI International Conference on Digital Forensics & Cyber Crime*, October 2024. Forthcoming in Springer Nature 2025
9. Thilanka Munasinghe, **Kimberly A. Cornell**, Jennifer C. Wei, George Berg, and James Hendler. A knowledge graph framework for organizing heterogeneous datasets for utilization in classical and quantum computing: Current challenges and future directions. In *2024 IEEE International Conference on Big Data*, Washington, DC, US, December 2024. Institute of Electrical and Electronics Engineers. Document ID: 20240015060, Acquisition Source: Goddard Space Flight Center
10. Brian H. Nussbaum, **Kimberly A. Cornell**, and Li Huang. The perfect victim? family offices as targets for cybercriminals. In *Proceedings of the 17th International Symposium on Foundations and Practice of Security (FPS 2024)*, volume 15532 and 15533 of *Lecture Notes in Computer Science*, Montral, Canada, December 2024. Springer Nature. Forthcoming

11. Lakshika Vaishnav, Sakshi Singh, and **Kimberly A. Cornell**. The hidden dangers of publicly accessible llms: A case study on gab ai. In *The 19th Annual Symposium on Information Assurance (ASIA 24)*, July 2024
12. Amanda S. Fernandez and **Kimberly A. Cornell**. S1 with a Side of AI: Teaching Software Verification for Secure Code in the Era of Generative AI. *ACM Technical Symposium on Computer Science Education (SIGCSE TS) 2024.*, Mar 2024
13. Veena Ravishankar, **Kimberly A. Cornell**, and Paliath Narendran. Asymmetric unification and disunification. In Carsten Lutz, Uli Sattler, Cesare Tinelli, Anni-Yasmin Turhan, and Frank Wolter, editors, *Description Logic, Theory Combination, and All That: Essays Dedicated to Franz Baader on the Occasion of His 60th Birthday*, pages 497–522. Springer International Publishing, 2019
14. Veena Ravishankar, Paliath Narendran, and **Kimberly A. Cornell**. Symmetric Unification and Disunification for the Theory of Abelian Groups with a Homomorphism (AGh). In Serdar Erbatur and Daniele Nantes, editors, *Proceedings of the 33rd International Workshop on Unification (UNIF 2019)*, 2019
15. Veena Ravishankar, **Kimberly A. Gero**, and Paliath Narendran. Asymmetric Unification and Disunification. In Adrià Gascón and Christopher Lynch, editors, *Proceedings of the 31st International Workshop on Unification (UNIF 2017)*, 2017. <https://unif-workshop.github.io/UNIF2017/#schedule>
16. Siva Anantharaman, **Kimberly A. Gero**, Paliath Narendran, and Michael Rusinowitch. Distinguishability in Protocol Analysis: Formally Analyzing Guessing Attacks. In Sanjay Goel, editor, *12th Annual Symposium on Information Assurance (ASIA '17)*, pages 29–35, 2017. https://www.albany.edu/iasymposium/proceedings/2017/ASIA2017_Proceedings.pdf
17. Daniel S. Hono II, Namrata Galatage, **Kimberly A. Gero**, Paliath Narendran, and Ananya Subburathinam. Notes on Lynch-Morawska Systems. In Silvio Ghilardi and Manfred Schmidt-Schauß, editors, *Proceedings of the 30th International Workshop on Unification (UNIF 2016)*, 2016. <http://users.mat.unimi.it/users/ghilardi/UNIF2016/UNIF16-abstracts.pdf>
18. **Kimberly A. Gero**. *Deciding Static Inclusion for DELTA-strong and OMEGA DEL-strong Intruder Theories: Applications to Cryptographic Protocol Analysis*. PhD thesis, STATE UNIVERSITY OF NEW YORK AT ALBANY, 2015. <https://www.proquest.com/dissertations-theses/deciding-static-inclusion--strong--intruder/docview/1699224308/se-2?accountid=201395>
19. Serdar Erbatur, **Kimberly A. Gero**, Andrew M. Marshall, Catherine Meadows, and Paliath Narendran. Unification modulo a Theory of Pairing and Encryption. In Santiago Escobar and Mateu Villaret, editors, *UNIF 2015, 29th International Workshop on Unification*, 2016. <http://users.dsic.upv.es/~sescobar/unif15-proceedings.pdf>
20. Christopher Bouchard, **Kimberly A. Gero**, and Paliath Narendran. Some Notes on Basic Syntactic Mutation. In Santiago Escobar, Konstantin Korovin, and Vladimir Rybakov, editors, *UNIF 2012 Post-Worskhop Proceedings. The 26th International Workshop on Unification*, volume 24 of *EPiC Series in Computing*, pages 17–27. EasyChair, 2014. <http://www.easychair.org/publications/?page=1544994675>
21. Christopher Bouchard, **Kimberly A. Gero**, Christopher Lynch, and Paliath Narendran. On Forward Closure and the Finite Variant Property. In Pascal Fontaine, Christophe Ringeissen, and Renate A. Schmidt, editors, *Frontiers of Combining Systems - 9th International Symposium, FroCoS 2013, Nancy, France, September 18-20, 2013. Proceedings*, volume 8152 of *Lecture Notes in Computer Science*, pages 327–342. Springer, 2013. http://dx.doi.org/10.1007/978-3-642-40885-4_23
22. Shreyaben Brahmakshatriya, Sushma Danturi, **Kimberly A. Gero**, and Paliath Narendran. Unification Problems Modulo a Theory of Until. In Konstantin Korovin and Barbara Morawska, editors, *27th International Workshop on Unification, UNIF 2013, Eindhoven, Netherlands, June 26, 2013*, volume 19 of *EPiC Series in Computing*, pages 22–29. EasyChair, 2013. <http://www.easychair.org/publications/?page=387500802>

23. Christopher Bouchard, **Kimberly A. Gero**, and Paliath Narendran. Some Notes on Basic Syntactic Mutation. In Santiago Escobar, Konstantin Korovin, and Vladimir Rybakov, editors, *26th International Workshop on Unification, UNIF 2012, Manchester, England, July 1, 2012*, pages 13–18, 2012
24. Michael Ferguson, **Kimberly A. Gero**, Joao Salles, and James Weis. Playing Chess with a Human-Scale Mobile Manipulator. In Wolfram Burgard and Dan Roth, editors, *Proceedings of the Twenty-Fifth AAAI Conference on Artificial Intelligence, AAAI 2011, San Francisco, California, USA, August 7-11, 2011*. AAAI Press, 2011

Other Publications

Technical Reports

- Zümriüt Akçam, **Kimberly A. Cornell**, Daniel S Hono, II, Paliath Narendran, and Andrew Pulver. On problems dual to unification: The string-rewriting case. *CoRR*, arXiv:2103.00386v2
- Veena Ravishankar, **Kimberly A. Gero**, and Paliath Narendran. Asymmetric unification and disunification. *CoRR*, abs/1706.05066, 2017
- Daniel S. Hono II, Namrata Galatage, **Kimberly A. Gero**, Paliath Narendran, and Ananya Subbathinam. Notes on Lynch-Morawska Systems. *CoRR*, abs/1604.06139, 2016

Posters

1. BenAoumeur, Olivia (Presenter & Author), **Kimberly A. Cornell** (Author Only), Showcase, “OfficeGuard: The Anti-Phishing Training Game,” University at Albany, Albany, NY. (April 30, 2024). Peer Reviewed/Refereed, Accepted work.
 2. Jimenez Pichardo, Nerys (Presenter & Author), **Kimberly A. Cornell** (Author Only), Ben Ami Lipetz Conference: New Trends in Informatics Research (NTIR), “AI and Games for Social Change: An Innovative Approach to K-12 Education,” UAlbany’s College of Emergency Preparedness, Homeland Security and Cybersecurity, ETEC Albany, NY. (April 18, 2024). Peer Reviewed/Refereed, Accepted work.
 3. Jimenez Pichardo, Nerys (Presenter & Author), **Kimberly A. Cornell** (Author Only), New York Celebration of Women in Computing (NYCWIC), “Gaming and Security: Exploring Gamers’ Perspectives on Cheating and Anti-Cheat Systems,” Association for Computing Machinery, Lake George, NY. (April 13, 2024). Peer Reviewed/Refereed, Accepted work.
 4. BenAoumeur, Olivia (Presenter & Author), **Kimberly A. Cornell** (Author Only), New York Celebration of Women in Computing (NYCWIC), “OfficeGuard: The Anti-Phishing Training Game,” Association for Computing Machinery, Lake George, NY. (April 13, 2024). Peer Reviewed/Refereed, Accepted work.
 5. Jimenez Pichardo, Nerys A. (Presenter & Author), **Kimberly A. Cornell** (Author Only), Ben Ami Lipetz Conference: New Trends in Informatics Research (NTIR), “Poster: An Overview of Cryptographic Protocols in Anti-cheat Systems for Video Games,” UAlbany’s College of Emergency Preparedness, Homeland Security and Cybersecurity, ETEC Albany NY. (April 27, 2023). Peer Reviewed/Refereed, Accepted work.
- Gero, Kimberly A. (Presenter & Author), Chao Shen (Presenter & Author), Consortium for Computing Sciences in Colleges Midwest Region, “Random Recursion,” (2009). Submitted as an extended abstract and presented as a poster. Peer Reviewed/Refereed, Accepted work.

Presentations

1. Ford, Angel (Panelist), Canbaz, Muhammed Abdullah (Panelist), **Kimberly A. Cornell** (Panelist), Subasi, Abdulhamit (Panelist), Germain, Carol A. (Moderator), Ben Ami Lipetz Conference: New Trends in Informatics Research (NTIR), “Panel: K12 Educators Integrating AI to Enhance Education,” UAlbany’s College of Emergency Preparedness, Homeland Security and Cybersecurity, ETEC Albany, NY. (April 18, 2024).
2. Fernandez, Amanda S. (Author Only), **Kimberly A. Cornell** (Presenter & Author), SIGCSE 2024: Proceedings of the 55th ACM Technical Symposium on Computer Science Education, “CS1 with a Side of AI: Teaching Software Verification for Secure Code in the Era of Generative AI,” Association for Computing Machinery, Portland, OR. (March 21, 2024). Peer Reviewed/Refereed, Accepted work.
3. **Kimberly A. Cornell** (Panelist), Keskin, Omer (Panelist), Canbaz, Muhammed Abdullah (Panelist), Ben Ami Lipetz Conference: New Trends in Informatics Research (NTIR), “Panel: Forging Research Partnerships as Tenure-Track Faculty,” College of Emergency Preparedness, Homeland Security, and Cybersecurity, ETEC. (April 26, 2023). Peer Reviewed/Refereed, Accepted work.
4. **Kimberly A. Cornell** (Presenter & Author), CEHC Lab Fest, “Cybersecurity and Cryptography Lab,” University at Albany’s CEHC, Albany, NY. (March 27, 2024). Invited work.
5. **Kimberly A. Cornell** (Leader), Jimenez Pichardo, Nerys (Presenter Only), BenAoumeur, Olivia (Presenter Only), Huang, Li (Presenter Only), Vaishnav, Lakshika, Lakshika (Presenter Only), Singh, Sakshi (Presenter Only), Girl Scout Cybersecurity Day, “Cybersecurity and Cryptography Lab,” CEHC and Girl Scouts, ETEC 261. (February 26, 2024). Invited work.
6. **Kimberly A. Cornell** (Presenter & Author), Rensselaer Polytechnic Institutes RAIR Lab Logic Group Seminar, “On Forward Closure and the Finite Variant Property,” NY Capital Region Logic group, Rensselaer Polytechnic Institute. (November 15, 2023). Invited work.
7. **Kimberly A. Cornell**, Research Presentation for Center for Internet Security (CIS) during Partnership Visit, “Cryptographic Protocol Analysis and related problems,” ETEC 340. (December 8, 2022). Invited work.
8. Keynote speaker at the Joseph Henry Science Fair 2018 talk titled “Digital Footprint.”
9. Presented in the Spring 2018 The College of Saint Rose ProVisions session titled “Creating a Diverse Learning Community.”
10. Constitution Day Talk at The College of Saint Rose titled “Cybersecurity, Privacy, and the Constitution” on September 11, 2018 (<https://www.strose.edu/2018/09/11/constitution-day-talk-to-focus-on-cybersecurity-privacy-and-rights/?fbclid=IwARODFQFG1TiJW9qP306JZnJys6-qLDCjHitcg9bnQe8J10jWYjAUx33qbtC>).
11. Siva Anantharaman, **Kimberly A. Gero**, Paliath Narendran, and Michael Rusinowitch. Distinguishability in Protocol Analysis: Formally Analyzing Guessing Attacks. In Sanjay Goel, editor, 12th Annual Symposium on Information Assurance (ASIA 17). I presented at ASIA in Albany, NY on June 7, 2017.
12. Daniel S. Hono II, Namrata Galatage, **Kimberly A. Gero**, Paliath Narendran, Ananya Subburathinam. Notes on Lynch-Morawska Systems. UNIF-2016, the 30th International Workshop on Unification. I presented in Porto, Portugal on June 26, 2016.
13. Christopher Bouchard, **Kimberly A. Gero**, and Paliath Narendran. Some Notes on Basic Syntactic Mutation. In Santiago Escobar, Konstantin Korovin, and Vladimir Rybakov, editors, 26th International Workshop on Unification, UNIF 2012. I presented in Manchester, England, on July 1, 2012.

ACM's New York Celebration of Women in Computing (NYCWiC) Presentations

1. NYCWiC 2016 panelist on Life after Graduate School talk.
2. NYCWiC 2016 led Github Workshops.
3. NYCWiC 2016 led Dinner Discussion on Portrayal of women in technology in pop culture.
4. NYCWiC 2016 led Lunch Discussion on Graduate school life.

Supervised Students

*Ph.D. Students***University at Albany - SUNY**

1. Veena Ravishankar - "Asymmetric Unification and Disunification," Co-advisor: Dr Paliath Narendran, Committee: Dr Neil Murray, Dr. Richard Stearns, degree awarded May 2018. University at Albany - SUNY.

*Masters Students***The College of Saint Rose**

1. Nerys A. Jimenez Pichardo - "Video Game Development," Project, Summer 2017.
2. Venkatesh Andem - "Website Development," Project, Fall 2016.
3. Ranadeesh Kusuma - "Website Development," Project, Fall 2016.
4. Swathi Peddi - "Website Development," Project, Fall 2016.

Service and Volunteer Work

Professional

- UNIF 2019, 2023, and 2024 (The International Workshop on Unification) Program Committee Member.
- FPS 2024, 2023, and 2022: The International Symposium on Foundations & Practice of Security Program Committee Member.
- IEEE BigData Conference Workshop on Big Data Analytics for Humanitarian Crises 2022 Program Committee Member.
- Peer Subreviewer for FPS 2018 The 11th International Symposium on Foundations & Practice of Security.
- Peer Subreviewer for Proceedings of the 32nd International Workshop on Unification (UNIF 2018).
- Peer Subreviewer for International Workshop on Unification (UNIF) 2014, 2016, and 2017.
- Consortium for Computing Sciences in Colleges Northeastern Region (CCSCNE) Career Fair Coordinator Spring 2016.
- Peer Subreviewer for Language and Automata Theory and Applications (LATA) 2013 and 2014.
- Peer Subreviewer for Automated Reasoning in Security and Software Verification (ARSEC) 2013.

University at Albany

- Game Design and Development (GDD) Director Search Committee Member and ODI Representative Spring 2025,
- Departmental Honors Director Fall 2024 - present
- CEHC Justice, Equity, Diversity, & Inclusion (JEDI) Committee Member (August 2023 - Present).
- Departmental Undergraduate Committee member Fall 2022 - present
- Departmental Research Promotion Committee member Fall 2022 -present.
- AI Supercomputing Cluster Building Advisory Group member Spring 2023
- Course Lead for CINF 308 Spring 2023 - present
- Course Lead for CINF 108 Fall 2022 - present.
- Served on a search committee to find 4 A.I faculty (Cybersecurity Assistant Professor, a Cybersecurity Full Professor, and 2 Information Sciences and Technology Associate Professors) for the new AI initiative. Fall 2022-Spring 2023.
- New Trends in Computer Science Program Committee 2014 and 2015.
- Faculty Search Committee 2013-2014.
- ACM Student Chapter Founding Co-Chair 2011.

The College of Saint Rose

- Middle States Self-Study Steering Committee Spring 2021 to Spring 2022.
- Founding Computer Science club faculty advisor, Spring 2018 to Spring 2022.
- BOLD Women's Leadership Network Saint Rose Selection Committee, Fall 2018 to Spring 2022.
- Academic Technology Committee, Fall 2016 to Spring 2020.
- Faculty Salary Committee, Fall 2016 to Spring 2020.
- Co-organized and co-hosted combined career fairs with the School of Business and the Computer Science Department, Spring 2018, Spring 2019, Fall 2019, and Fall 2020.
- Course Evals Ad Hoc Committee, Spring and Fall 2019.
- Reach out Saint Rose volunteer, Fall 2018 and Fall 2019.
- Freshmen Cruise Chaperone, Fall 2016, Fall 2018 and Fall 2019.
- Science Fair judge at the Joseph Henry Science Fair 2019 held at The College of Saint Rose.
- Computer Science Search Committee for 2 positions Fall 2016 - Spring 2017.
- Liberal Education Coordinating Committee Fall 2015 to Summer 2016.

Skills and Qualifications

Programming and markup languages: Java, Python, LaTeX, Maude, SQL, Perl, Javascript, HTML, C, Scheme, Prolog, Haskell and ML.

Windows and Unix-based Operating Systems.

College Reading & Language Association International Tutor Training Program Level 3 Master Tutor.

Professional Development

- Professional Development and Continuing Education Grant proposal writing course, University at Albany (September 2022 - May 2023).

Professional Organizations

1. Association for Information Science & Technology (ASIS&T) (March 2024 - present).
2. Institute of Electrical and Electronics Engineers Women in Engineering (August 2023 - Present).
3. Institute of Electrical and Electronics Engineers (IEEE) Member Fall 2023-present.
4. Association for Computing Machinery (ACM) Member Fall 2018-2020, Lifetime Member Fall 2023 to Present.
 - ACM's New York Celebration of Women in Computing (NYCWIC) Marketing and Social Media Chair Summer 2018 to Fall 2020.
 - ACM's New York Celebration of Women in Computing (NYCWIC) Communications Chair and Webmaster Spring 2016 to Spring 2018.
5. Member of Women@Work (Fall 2018 to Fall 2020).
Attended the following events:
 - 2019 Women@Work Summit: Seeing, Hearing, Believing in Women on June 5th 2019.
 - An evening with Nancy Kerrigan at Women@Work February 7th 2019.
 - Jennifer MacPhee at Women@Work December 7th 2018.
 - Women@Work Mixer at the Adelphi July 12th 2018.
 - 2018 Women@Work Summit: Lead From Where You Are on June 15th 2018.
- Society for Industrial and Applied Mathematics (SIAM) Member Fall 2015 - Summer 2016.

Honors and Awards

- Runner-Up for the Best Poster Paper Award at the IEEE BigData 2024 conference for the poster paper titled "A Knowledge Graph Framework for Organizing Heterogeneous Datasets for Utilization in Classical and Quantum Computing: Current Challenges and Future Directions."
- University at Albany, SUNY - Excellence in Service to the College Award May 17th 2015.
- Woody Bledsoe Student Travel Award Summer 2013.
- Woody Bledsoe Student Travel Award Summer 2012.
- University at Albany, SUNY - Graduate Student Organization Travel Award Summer 2012.
- Graduate Student Employee Union Profession Development Travel Award Summer 2012.

References

Available upon request.

