Tathagata Mukherjee

Assistant Professor
Department of Computer Science
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Education

- **Ph.D (Computer Science)**, Florida State University, Fall 2016 (GPA 4.0/4.0)
- **M.S (Computer Science)**, Florida State University, Summer 2014 (GPA 4.0/4.0)
- **B.S (Honors in Statistics) First in First Class**, University of Kalyani, 2000

Research Interests

- Cyber Security
- Digital & Mobile Forensics
- Computer Security & Hacking
- Cyber Law & Organized Cybercrime
- Machine Learning (Specially interested in applications to Cognitive Radio & RADAR, Networked Systems for Highly Contested Environments, Mobile & Digital Forensics and Cybersecurity, Adversarial Learning)
- GPS Denied Positioning, Navigation & Timing (PNT)
- Quantum Computing & Applications
- Deep Learning & Approximations
- Optimization problems in Machine Learning & Data Analytics
- Combinatorial Optimization (primarily Graph Theory)
- Applied Problems in Computational Geometry
- Approximation Algorithms & Hardness of approximation

Other Affiliations

- Founder and Director of Data Science and Cyber Security Lab at University of Alabama in Huntsville
- Founder and Director of Software Defined Radio Networks Lab (SDRNet Lab) at REEF, Eglin AFB, Shalimar FL
- Faculty Adviser, UAH Cyber Club

Professional Memberships

- Fellow of the Royal Society of Statistics
- Member IEEE Computer Society
- Member IEEE
- Member ACM
- Member SIAM
- Member, IFIP Working Group 11.9 on Digital Forensics
- Member, The American Society of Digital Forensics & eDiscovery
- Invited Member, Upsilon Pi Epsilon Honor Society
- Invited Member, Phi Kappa Phi Honor Society
- Invited Member, Golden Key International Honor Society

Employment History

- Assistant Professor (Computer Science), Department of Computer Science, The University of Alabama in Huntsville (August 2018 - present)
- Courtesy Faculty, Department of Computer Science, Florida State University (2017 - present)
- CEO & Chief Scientist, Intelligent Robotics Inc. (a non-profit research lab & an Air Force Research Labs in-house contractor) (January 2017 - August 2018)
- Chief Scientist, Intelligent Robotics inc. (a non-profit research lab & an Air Force Research Labs in-house contractor) (October 2016 - August 2018)
- Research Intern, UF-REEF, Air Force Research Labs, Shalimar, Florida, (2016,2015,2014,2013)
- Teaching and Research Assistant, Department of Computer Science, Florida State University, Tallahassee, Florida, 2009 - May 2015
- Research Assistant, Department of Computer Science Florida Institute of Technology, Melbourne, Florida, August 2008 - December 2008
- Application Engineer, Oracle R&D, India, November 2006 - December 2007
- Senior Java Programmer, Cognizant Technology Solutions, April 2005 - October 2006 and December 2007 till April 2008
- Lecturer, Department of Computer Science, New Alipore College, Kolkata from July 2004 till December 2004
- Research intern, Indian Statistical Institute, Kolkata in the Machine Intelligence Unit under Prof. C.A. Murthy, May 2003 - May 2004

Awards & Achievements

- **Faculty Excellence in Research Award, College of Sciences, The University of Alabama in Huntsville, April 2022**
- **BEST Research Paper Award, ACM Southeast Conference 2021**
- **BEST Paper Runner-up IEEE International Performance Computing and Communications Conference 2018**
- **USPTO patent awarded for GPS denied positioning system, 2018**
- **Captive Eyes Big Data Fellowship**, Summer 2016
- **Captive Eyes Big Data Fellowship**, Fall 2016
- **Best Teaching Assistant Award** Florida State University 2010, 2014
- **Best Poster Presentation Award** at Computer Science Expo, Florida State University, 2014
- **Honorable Mention** ACM South East Regional Programming Contest 2010
- **First in First Class (University Topper in Statistics(Honors))** University of Kalyani, 2000
- **Recipient of S.B. Dasgupta memorial award for excellence in Statistics** from the University of Kalyani, from Honorable Governor of West Bengal, Mr. Viren.J.Shah, 2000
- **Multiple Research Awards from National Science Foundation, National Institute of Justice and Air Force Research Laboratory** (Please see below)
- Selected through **GATE (2005)** for Pursuing Master's at IIT, **DRDO SET (2007) Scientist Selection Examination for Defense Research and Development Organization, India**
- **Continuously** supported by Teaching & Research Assistant-ships for graduate (MS & PHD) studies @ Florida State University
- Nominated for Outstanding Teaching Assistant Award, Florida State University, Spring 2015

Peer Reviewed Publications

Papers marked with a (*) are with students and/or hosted/mentored scholars.

Journal Publications

1. (*) Debashri Roy, Alec Riden, Jared Paquet, Erik Blasch, Eduardo Pasiliao Jr., **Tathagata Mukherjee** "GANSAT: A System for Detection of GPS Spoofer using SATellite Constellation Fingerprinting and GAN Training" *In IEEE Access, Volume 10, Pages: 45485-45507, Year 2022*
2. (*) Chaity Banerjee, Tharun Kumar Doppalapudi, Eduardo Pasiliao Jr., **Tathagata Mukherjee** "Camera Identification Using Image Based Deep Feature Signatures" *In IEEE Journal of Big Data Mining & Analytics, Volume 5, Number 3, Pages: 206-227, Year 2022*
3. (*) Abel Alex Boozer, Arun John, **Tathagata Mukherjee** "Internet of Things Software and Hardware Architectures and Their Impacts on Forensic Investigations: Current Approaches and Challenges" *In Journal of Digital Forensics, Security and Law, Volume 16, Number 2, Year 2021*
4. (*) Muthukumaran Ramaburamanian, Chaity Banerjee, Debashri Roy, Eduardo Pasiliao Jr., **Tathagata Mukherjee** "Exploiting Spatio-Temporal Properties of I/Q Signal Data using 3D Convolution for RF Transmitter Identification" *In IEEE Journal of Radio Frequency Identification, Volume 5, Number 2, Pages: 113-127, Year 2021*

5. (*) Debashri Roy, **Tathagata Mukherjee**, Mainak Chatterjee, Eduardo Pasiliao Jr. "Adaptive Streaming of HD and 360Videos over Software Defined Radios" *In Journal of Pervasive and Mobile Computing, Volume 67, Year 2020*

6. (*) Debashri Roy, **Tathagata Mukherjee**, Eduardo Pasiliao "Exploiting Spatio-temporal Correlation in RF Data using Deep Learning" *Book Chapter in Deep Learning Applications, Volume 2, Pages: 143-172, Year 2020, Publisher Springer*

7. Chaity Banerjee, **Tathagata Mukherjee**, Eduardo Pasiliao Jr. "Feature Representations using the Reflected ReLU Activation" *In IEEE Journal of Big Data Mining & Analytics, Volume 3, Number 2, Year 2020*

8. (*) Debashri Roy, **Tathagata Mukherjee**, Mainak Chatterjee, Erik Blasch, Eduardo Pasiliao "RFAL: Adversarial Learning for RF Transmitter Identification and Classification" *In IEEE Transactions on Cognitive Communications and Networking, Volume 6, Number 2, Pages: 783-801, Year 2019*

9. **Tathagata Mukherjee**, Piyush Kumar, Debdeep Pati, Erik Blasch, Eduardo Pasiliao, Liqin Xu. "LoSI: Large Scale Location Inference through FM Signal Integration and Estimation" *In IEEE Journal of Bigdata Mining and Analytics, Volume 2, Number 4, Year 2019*

10. (*) Debashri Roy, **Tathagata Mukherjee**, Mainak Chatterjee "Machine Learning in Adversarial RF Environment" *In IEEE Communications, Volume 57, Number 5, Pages: 82-87, Year 2019*

11. (*) Sudhir Aggarwal, Gokila Dorai, Umit Karabiyik, **Tathagata Mukherjee**, Nicholas Guerra, Manuel Hernandez, James Parsons, Khushboo Rathi, Hongmei Chi, Temilola Aderibigbe, Rodney Wilson "Design and Implementation of a Targeted Data Extraction System for Mobile Devices" *Book Chapter in Advances in Digital Forensics, Pages: 73-100, Year 2019*) **Authors sorted by last name**

12. Chaity Banerjee, **Tathagata Mukherjee**, Chad Lilian, Daniel Reasor, Xiuwen Liu and Eduardo Pasiliao "A Feature Selection Algorithm Using Neural Networks" *In International Journal of Machine Learning & Computing (IJMLC), Accepted 2019, Published 2022, Volume 12, Number 1, Pages: 31-36, ISSN: 2010-3700, DOI: 10.18178/ijmlc.2022.12.1.1075*

Conference Publications

1. (*) Nikita Susan Joseph, Chaity Banerjee, Daniel Reasor, Eduardo Pasiliao, **Tathagata Mukherjee** "Mesh Based Neural Networks for Estimating High Fidelity CFD from Low Fidelity Input" *In Proceedings of IEEE SoutheastCon 2022*

2. (*) Alec Riden, Debashri Roy, Eduardo Pasiliao Jr., **Tathagata Mukherjee** "DeePOE: Deep Learning for Position and Orientation Estimation" *In Proceedings of IEEE Asia Pacific Communications Conference 2021 (IEEE APCC 2021)*

3. Chaity Banerjee, Chad Lilian, Daniel Reasor, Eduardo Pasiliao, **Tathagata Mukherjee** "An Application of Generative Adversarial Networks for Robust Inference in Computational Fluid Dynamics" *In Proceedings of International Conference on Information Systems & Data Mining 2021 (Published by ACM)*

4. (*) (**BEST RESEARCH PAPER AWARD**) Vaidyanath Areyur Shanthakumar, Clark Barnett, Keith Warnick, Putu Ayu Sudyanti, Vitalii Gerbuz, **Tathagata Mukherjee** "Item Based Recommendation Using Matrix-Factorization-Like Embeddings From Deep Networks" *In Proceedings of ACM South East Conference 2021*

5. Sudhir Aggarwal, James Parsons, Shiva Housmand, **Tathagata Mukherjee** "An Empirical Study on Efficiency of a Dictionary Based Viterbi Algorithm for Word Segmentation" *In Proceedings of IEEE International Conference on Big Data 2020*

6. (*) Nikita Susan Joseph, Chaity Banerjee Mukherjee, Eduardo Pasiliao Jr., **Tathagata Mukherjee** "FlightSense: A Spoofer Detection and Aircraft Identification System using Raw ADS-B Data" In Proceedings of IEEE International Conference on Big Data 2020

7. (*) (POSTER) Nikita Susan Joseph, Chaity Banerjee Mukherjee, Eduardo Pasiliao Jr., **Tathagata Mukherjee** "A Robust Learning Framework For Aircraft Identification Using ADS-B I/Q Information" *Presented at Von Braun Symposium 2020*

8. Chaity Banerjee, **Tathagata Mukherjee**, Eduardo Pasiliao "The Multi-phase ReLU Activation Function" *In Proceedings of ACM Southeast (ACMSE) Conference 2020*

9. (*) Vaidyanath Areyur Shanthakumar, Chaity Banerjee, Eduardo Pasiliao Jr., **Tathagata Mukherjee**, "Uncooperative Direction Finding with Neural Networks using I/Q Information" *In Proceedings of International Conference on Information Systems & Data Mining 2020*

10. (*) Vishal Perekadan, **Tathagata Mukherjee**, Chaity Banerjee, Eduardo Pasiliao Jr. "RF-MSiP: Radio Frequency Multi-Source Indoor Positioning with FM & GSM" *In Proceedings of IEEE International Conference on Big Data 2019*

11. (*) Debashri Roy, **Tathagata Mukherjee**, Mainak Chatterjee, Eduardo Pasiliao Jr. "RF Transmitter Fingerprinting Exploiting Spatio-temporal Properties in Raw Signal Data" *In Proceedings of IEEE International Conference of Machine Learning & Applications (ICMLA) 2019*

12. (*) (POSTER) Vishal Perekadan, **Tathagata Mukherjee**, Chaity Banerjee, Eduardo Pasiliao Jr. "RF-MSP: Radio Frequency Based Multi-Source Positioning in Indoor Environments" *Presented at Von Braun Symposium, American Astronautical Society, 2019*

13. (*) Debashri Roy, Mainak Chatterjee, **Tathagata Mukherjee**, Eduardo Pasiliao Jr. "Primary User Activity Prediction in DSA Networks using Recurrent Structures" *In Proceedings of IEEE DySPAN 2019*

14. (*) Debashri Roy, **Tathagata Mukherjee**, Mainak Chatterjee, Eduardo Pasiliao Jr. "Defense against PUE Attacks in DSA Networks using GAN based Learning" *In Proceedings of IEEE Globecom 2019*

15. Chaity Banerjee, **Tathagata Mukherjee**, Eduardo Pasiliao "An Empirical Study on Generalizations of the ReLU Activation Function" *In Proceedings of ACM Southeast (ACMSE) Conference 2019*

16. (*) Debashri Roy, **Tathagata Mukherjee**, Mainak Chatterjee, Eduardo Pasiliao Jr. "Detection of Rogue RF Transmitters using Generative Adversarial Nets" *In Proceedings of IEEE Wireless Communications and Networking Conference (WCNC) 2019*

17. (*) (**BEST PAPER RUNNER UP**) Debashri Roy, **Tathagata Mukherjee**, Mainak Chatterjee, Eduardo Pasiliao Jr. "Adaptive Video Encoding and Channel Selection for Video Streaming over SDRs" *In Proceedings of 37^{th} IEEE International Performance Computing and Communications Conference 2018*

18. (*) Orhan Akal, **Tathagata Mukherjee**, Adrian Barbu, Jared Paquet, Kevin George, Eduardo Pasiliao Jr. "A Distributed Sensing Approach for Single Platform Image-based Localization" *In Proceedings of 17^{th} IEEE International Conference on Machine Learning & Applications (ICMLA), 2018*

19. Biswas Parajuli, Piyush Kumar, **Tathagata Mukherjee**, Sachin Jambawalikar, Eduardo Pasiliao Jr. "Fusion of Aerial Lidar and Images for Road Segmentation with Deep CNN" *In Proceedings of 26^{th} ACM Sigpatial International Conference on Advances in Geographic Information Systems 2018, Seattle, Washington*

20. (*) (POSTER) Debashri Roy, **Tathagata Mukherjee**, Mainak Chatterjee, Eduardo Pasiliao "Detection of Rogue Transmitters in RFML System for Vehicular Networks using SDR." *Presented in NEWSDR 2018 Boston MA*

21. **Tathagata Mukherjee**, Andreas Adolfson, Piyush Kumar, Eduardo Pasiliao, "Hierarchical Learning For FM Radio Based Aerial Localization Using RSSI." *In Proceedings of GNU Radio Conference, Volume 2, 2017*

22. **Tathagata Mukherjee**, Michael Duckett, Piyush Kumar, Daniel Rodriguez, Jared Paquet, Mallory Haulcomb, Kevin George, Eduardo Pasiliao. "RSSI-Based Supervised Learning For Uncooperative Direction-Finding." *In Proceedings of Joint European Conference on Machine Learning and Knowledge Discovery in Databases 2017, pp 216-227*

23. **Tathagata Mukherjee**, Biswas Parajuli, Piyush Kumar, Eduardo Pasiliao. "TruthCore: Nonparametric Estimation of Truth from a Collection of Authoritative Sources." *IEEE International Conference on Big Data, 2016, pp 976-983*

24. Piyush Kumar, **Tathagata Mukherjee**, Eduardo Pasiliao, Liqin Xu. "Cheap Approximate Localization Using FM Radio" *Proceedings of the 23rd SIGSPATIAL International Conference on Advances in Geographic Information Systems, 2015* **Authors sorted by last name**

Under Preparation & Review

1. (*) Vaidyanath Areyur Shanthakumar, Wanbin Li, Vitalii Gerbuz, John Savage, Keith Warnick, Putu Ayu Sudyanti, **Tathagata Mukherjee** "Fighting missing modalities with masked Autoencoders: A recommender systems problem" *Under Review in ACM RecSys 2022*

2. (*) Shinelle Hutchinson, Mohammad Meraj Mirza, Nicholas West, Umit Karabiyik, **Tathagata Mukherjee** "Investigating Fitness Applications: Data Privacy and Digital Forensics Analysis on Android" *Under Review in Journal of Surveillance, Security and Safety*

3. **Tathagata Mukherjee**, Alexander Veremeyev, Vladimir Boginski, Eduardo Pasiliao Jr. "The Minimum Edge Compact Spanner Problem" *Ready for submission to Journal of Global Optimization*

4. (*) Arun John, Rahul Ramachandran, Manil Maskey, Christopher Lymes, **Tathagata Mukherjee** "An Empirical Study of Data Tampering Detection Methods for Data Replicated on the Cloud " *In preparation for IEEE Access*

Patents

1. Method for Passive Approximate Localization using Frequency Modulation and Software Defined Radio (USPTO Patent Granted August 2018, Application Number 15276737)

2. Design and Implementation of a Targeted Data Extraction System for Mobile Forensics (Patent application filed with USPTO Docket Number 6624-06401, January 16, 2020)

3. Systems and Methods for Identifying Transmitters (a Utility Application filed March 24, 2021 (UAH-P-19001 & UAH-P-19024))

4. GANSAT: A Gan and SATellite Constellation Fingerprint-based Framework for GPS Spoofer Detection and Location Estimation in GPS Deprived Environment (an Utility has been filed.)

Awards & Support

Current Support:

1. **Tathagata Mukherjee (PI)**, Total Award Amount **$180,000**, Title: Scalable Multiphone Targeted Data Extraction System, Funding Agency: NIJ, Period: January 2022 to December 2023, Collaboration with Purdue and FSU (Total Award Amount **$ 600,000**)

2. **Tathagata Mukherjee (PI)**, Disbursed Amount Till Date **$ 257,798**, Title: IMPACT-Data Science and Big Data Research for Earth Science Systems, Funding Agency: NASA, Period: October 2021 to December 2023, Total Award Amount **$ 1240,883**)

3. **Tathagata Mukherjee (co-PI), PI: Dr. Vineetha Menon**, Total Award Amount **$260,057**, Title: Artificial Intelligence Driven Terrain Detection and Automated Decision making in Mobile Robot Systems, Funding Agency: ARL, Period: September 2021 to January 2023, Collaboration with Missouri S&T

4. **Tathagata Mukherjee (PI)**, Haeyong Chung (Co-PI), Award Amount **$575,000**, Title: AI Enabled Community Supervision for Criminal Justice Services, Funding Agency: NIJ, Period: May 2020 to December 2024, In collaboration with Purdue University and FSU, Total Award Amount **$ 1,999,778**)

5. **Tathagata Mukherjee (PI)**, Title: Modeling and Optimization of Networked Systems in Contested Environments, PTE Federal Award No: FA-8651-16-2-0009, Contracting agency: University of Central Florida, Funding agency: AFRL, Total Award Amount **$388,000**, Period: January 2019 to October 2022

6. **Tathagata Mukherjee (PI)**, Title: Generalized Sparse Spanners for Robust and Reliable Routing Protocols, Contracting Agency: University of Florida, Funding Agency: AFRL/RWWN, Award Amount **$ 150,000** Period: January 2019 to November 2022, Total Award Amount **$ 450,000**

Completed Support

1. **Tathagata Mukherjee (PI)**, Title: Assured Communication in Contested Environments, Contracting agency: University of Florida (UFDSP00010851), Funding agency: AFRL, Total Award Amount **$775,629**

2. **Tathagata Mukherjee (PI)**, Title: Modeling and Optimization of Networked Systems in Contested Environments, PTE Federal Award No: FA-8651-16-2-0009, Funding Agency: AFRL, Total Award Amount: **$33,000**

3. **Tathagata Mukherjee (Co-PI)**, Title: Targeted Forensic data Extraction from Mobile Devices (PI: Dr. Sudhir Aggarwal, Florida State University), Funding agency: NIJ, Grant Number: NIJ-2016-8976, Total Award Amount **$541,232**

4. **Tathagata Mukherjee (PI)**, Title: Consensus Algorithms for Distributed Object Detection and Tracking Using RF and Vision, Funding Agency AFRL, Total Award Amount **$ 80,000**

5. AFRL Summer Research Award, 2015,2014,2013 & Spring Research Award 2016

6. **Tathagata Mukherjee (Co-PI)** (PI: Dr. Piyush Kumar), Title: "Meeting Point:Eco-Smart Mobility Solutions", Funding Agency: NSF, Total Award Amount **$ 50,000**

Teaching Experience

- Graduate special topics: Hacking for Defense in collaboration with National Security Innovation Network (NSIN), Summer 2022
- Graduate Advanced Deep Learning Seminar (Spring 2022 at UAH)
- Graduate & Undergraduate Mobile Digital Forensics (Spring 2022 at UAH)
- Graduate & Undergraduate Network Security (Spring 2022 at UAH)
- Graduate & Undergraduate Mobile Digital Forensics (Fall 2021 at UAH)
- Graduate & Undergraduate Network Security (Fall 2021 at UAH)

- Graduate Advanced Computer Networks (Spring 2021 at UAH)
- Graduate & Undergraduate Network Security (Spring 2021 at UAH)
- Graduate & Undergraduate Network Security (with Hacking for Defense) (Fall 2020 at UAH)
- Graduate & Undergraduate Mobile Digital Forensics (Fall 2020 at UAH)
- Graduate & Undergraduate Network Security (with Hacking for Defense) (Spring 2020 at UAH)
- Introduction to Quantum Computing & Applications (Special Topics) (Spring 2020 at UAH)
- Graduate & Undergraduate Mobile Digital Forensics (Fall 2019 at UAH)
- Graduate & Undergraduate Network Security (Fall 2019 at UAH)
- Malware Analysis (Special Topics) (Fall 2019 at UAH)
- Malware Analysis (Special Topics) (Summer 2019 at UAH)
- Graduate & Undergraduate Network Security (Spring 2019 at UAH)
- Graduate & Undergraduate Network Security (Fall 2018 at UAH)
- Design and Analysis of Algorithms (Taught this course 4 times with three different instructors: Drs. Piyush Kumar, Sudhir Aggarwal & Margareeta Ackerman), (Senior Undergraduate and Graduate level course at Florida State University)
- Application Development with Python, (Senior Undergraduate and Graduate level course at Florida State University)
- Graduate Level Data Communication and Computer Networks (Taught this course twice with two instructors: Drs Zhenghao Zhang & Sudhir Aggarwal at Florida State University)
- Advanced Algorithms (Graduate only) (with Dr. Piyush Kumar at Florida State University)
- Computer Literacy (Taught at Florida State University)

News Media Coverage

- FSU CS News
- The Herald
- Huntsville Times
- Alabama Media Group
- WHNT TV News
- WAFF TV News
- WAAY TV News
- WVTM NBC News
- UAH News Bytes

Student & Scholar Mentoring

Students Advised/Mentored

1. **Ph.D Major Professor/Adviser (Graduated Spring 2022)** of Dr. Vaidyanath Areyur Shanthakumar at The University of Alabama in Huntsville, Department of Computer Science. Currently working as a Machine Learning Scientist at Overstock.com
2. **MS CS Thesis Major Professor/Adviser (Graduated Spring 2021)** of Mr. Arun John at The University of Alabama in Huntsville, Department of Computer Science. Currently working at Amazon as a Cyber Security Engineer
3. **MS CS Thesis Major Professor/Adviser (Graduated Summer 2021)** of Mr. Prasanna Koirala at The University of Alabama in Huntsville, Department of Computer Science. Currently Research Associate at Vanderbilt University
4. **MS CS Thesis Major Professor/Adviser (Graduated Fall 2021)** of Mr. Tharun Kumar Doppalapudi at The University of Alabama in Huntsville, Department of Computer Science. Currently working as a Machine Learning Engineer in Axtria
5. **MS CS Thesis Major Professor/Adviser (Graduated Fall 2020)** of Ms. Nikita Susan Joseph at The University of Alabama in Huntsville, Department of Computer Science. Currently working as a research associate at University of Central Florida
6. **MS CS Thesis Major Professor/Adviser (Graduated, Summer 2020)** of Mr. Surya Vamsi Verma at The University of Alabama in Huntsville, Department of Computer Science. Last known employment at ITSC, UAH
7. **MS CS Thesis Major Professor/Adviser (Graduated, Fall 2019)** of Mr. Vishal Perekadan at The University of Alabama in Huntsville, Department of Computer Science. Currently working as Computer Scientist I at NASA
8. **Ph.D dissertation co-advised with Prof. Sudhir Aggarwal** of Dr. Golila Dorai, Currently Assistant Professor, Augusta University, GA, USA
9. **Mentor** MS Project with Dr. Piyush Kumar for Mr. Gaurav Sinha
10. **Mentor** MS Project with Dr. Piyush Kumar for Mr. Harish Chetty
11. **Mentor** MS Project with Dr. Piyush Kumar for Mr. Robert Griesmeyer

Hosted Scholars

1. **Dr. Debashri Roy** as research scholar @ AFRL, currently Postdoctoral Scholar at Northeastern University
2. **Dr. Raj Shukla** as research scholar @ AFRL, currently at Bristol University
3. **Dr. Orhan Akal** as research scholar @ AFRL, currently Senior Machine Learning Scientist at Overjet
4. Mr. Kevin George as research staff @ Intelligent Robotics
5. Mr. Andreas Adolfson as research intern @ Intelligent Robotics

Current Students

1. **Ph.D Major Professor/Adviser** of Mr. Muthukumaran Ramasubramanian at The University of Alabama in Huntsville, Department of Computer Science
2. **MS/Ph.D Major Professor/Adviser** of Ms. Pushwitha Krishnappa at The University of Alabama in Huntsville, Department of Computer Science
3. **MS CS Thesis Major Professor/Adviser** of Mr. Uday Bommala at The University of Alabama in Huntsville, Department of Computer Science
4. **MS CS Thesis Major Professor/Adviser** of Ms. MilYonta Williams at The University of Alabama in Huntsville, Department of Computer Science
5. **MS CS Thesis Major Professor/Adviser** of Ms. Digya Acharya at The University of Alabama in Huntsville, Department of Computer Science
6. **MS CS Thesis Major Professor/Adviser** of Ms. Meghana Paramesh at The University of Alabama in Huntsville, Department of Computer Science
7. **MS CS Thesis Major Professor/Adviser** of Mr. Rajesh Pandey at The University of Alabama in Huntsville, Department of Computer Science
8. **MS CS Thesis Major Professor/Adviser** of Mr. Nishan Pantha at The University of Alabama in Huntsville, Department of Computer Science
9. **MS CS Thesis Major Professor/Adviser** of Mr. Saurav Upadhaya at The University of Alabama in Huntsville, Department of Computer Science
10. Undergraduate research with Mr. Timothy McCorry (UG UAH CPE) at The University of Alabama in Huntsville, Department of Computer Science

Shinelle Hutchinson

Academic Committees

1. Ph.D Committee (Current) of Ms. Shinelle Hutchinson at Purdue University, Department of Computer & Information Technology
2. Ph.D Committee (Current) of Mr. Bishwas Praveen at The University of Alabama in Huntsville, Department of Computer Science
3. Ph.D Committee (Current) of Mr. Thomas de Witt at The University of Alabama in Huntsville, Department of Computer Science
4. Ph.D Committee (Graduated) of Mr. Deepak Bhaskar Acharya at The University of Alabama in Huntsville, Department of Computer Science
5. MS Thesis Committee **(Graduated)** of Mr. Jeren Suzuki at The University of Alabama in Huntsville, Department of Computer Science
6. Ph.D Committee **(Graduated)** of Mr. Khomsan Singhirunnusorn at The University of Alabama in Huntsville, Department of Computer Science
7. Ph.D Committee **(Graduated)** of Ms.Gokila Dorai at Florida State University, Department of Computer Science
8. MS Thesis Committee **(Graduated)** of Mr. Bishwas Praveen at The University of Alabama in Huntsville, Department of Computer Science

9. MS Thesis Committee **(Graduated)** of Mr. Buddha Shrestha at The University of Alabama in Huntsville, Department of Computer Science
10. MS Project Committee **(Graduated)** of Mr. Manuel Hernandez at Florida State University, Department of Computer Science
11. MS Project Committee **(Graduated)** of Mr. James Parsons at Florida State University, Department of Computer Science
12. Proposal Evaluation Committee, Charger Innovation Fund 2019, The University of Alabama in Huntsville

Synergistic Activities

- **Invited Conference Program Committees & Journal Review**
  1. Technical Program Committee of ADFSL 2022
  2. Reviewer for Elsevier Journal of Pervasive and Mobile Computing, April 2022
  3. Technical Program Committee of 3^{rd} Wireless Sensors and Drones in Internet of Things (WiDroIT), 2022
  4. Technical Program Committee for 5^{th} International Conference on Information Systems and Data Mining (ICISDM), 2022
  5. Reviewer for Elsevier Journal of Pervasive and Mobile Computing, December 2021
  6. Reviewer for IEEE Transactions on Aerospace & Electronic Systems, October 2021
  7. Reviewer for Elsevier Journal of Pervasive and Mobile Computing, September 2021
  8. Reviewer Journal of Digital Forensics, Security and Law, August 2021
  9. Reviewer for IEEE Transactions on Cognitive Communications and Networking (IEEE TCCN), August 2021
  10. Technical Program Committee for 5^{th} International Conference on Information Systems and Data Mining (ICISDM), 2021
  11. Reviewer for IEEE Transactions on Aerospace & Electronic Systems, 2021
  12. Program Committee for 17th International Conference on Computational Intelligence and Security (CIS), 2021, Chengdu, China
  13. Organizing Committee for ACM Southeast Conference, 2022, Jacksonville, AL
  14. Technical Program Committee of 3^{rd} Wireless Sensors and Drones in Internet of Things (WiDroIT), 2021
  15. Session Chair for ACM Southeast Conference, 2021, Jacksonville, AL
  16. NSF review panelist 2021
  17. Reviewer for IEEE Transactions on Aerospace & Electronic Systems, 2020
  18. Reviewer for Pervasive and Mobile Computing 2019/2020/2021
  19. Program Committee for MOBILITY 2021
  20. Program Committee for SPACOMM 2021
  21. Program Committee for ACM Southeast Conference, 2021, Jacksonville, AL
  22. Program Committee for International Conference on Information Systems and Data Mining , 2021, Santa Clara, CA, USA
  23. Reviewer for National Science Foundation, USA
  24. Program Committee for 9th International Conference on Computational Data and Social Networks, 2020, Dallas, TX

25. Program Committee for 16th International Conference on Computational Intelligence and Security (CIS), 2020, Nanning, China
26. Reviewer Elsevier Computer Communications
27. Reviewer IEEE Transactions on Industrial Electronics
28. Reviewer Journal of Digital Forensics, Security and Law
29. Reviewer IEEE Transactions on Big Data
30. Technical Program Committee of The Fifteenth International Conference on Internet and Web Applications and Services (ICIW) 2020
31. Technical Program Committee of The Twelfth International Conference on Advanced Geographic Information Systems, Applications, and Services (GeoProcessing), 2020
32. Technical Program Committee of The Twelfth International Conference on Information, Process, and Knowledge Management (eKNOW), 2020
33. Technical Program Committee of 2^{nd} Wireless Sensors and Drones in Internet of Things (Wi-DroIT), 2020
34. Technical Program Committee of 4^{th} International Conference on Information Systems and Data Mining (ICISDM), 2020
35. Technical Program Committee of 21^{st} International Conference on Distributed Computing and Networking (ICDCN), 2020
36. Reviewer European Symposium of Algorithms (ESA), 2019
37. Technical Program Committee of 28^{th} International Conference on Computer Communications and Networks (ICCCN), 2019
38. Organizing Committee GNU Radio Conference (GrCon) 2019, Huntsville AL
39. Organizing Committee & Publicity Chair Wi-DroIT 2019, Greece
40. Organizer RFML Tutorial GNU Radio Conference (GrCon) 2018, Las Vegas
41. Co-Chair The 6^{th} Annual AFRL Mathematical Modeling and Optimization Institute Workshop
42. Editorial Board Member Knowledge Discovery & Data Mining Letters
43. Reviewer for Pervasive and Mobile Computing 2018
44. Reviewer for Energy Systems
45. Reviewer for HiPC 2017
46. Reviewer for Optimization Letters
47. Reviewer for IFIP 2015
48. Reviewer for IROS 2015
49. Reviewer for Transactions of Mobile Computing (TMC)

- **University Service**

1. Founder and faculty adviser for UAH Cyber Club
   - Coached the cyber club for Cyberforce Competition from 2019 and the club represented UAH from 2019 on wards at the competition. We were placed 5^{th} out of 127 schools in the entire US in Cyberforce 2021
   - Coached the club for SECCDC 2022, represented UAH and qualified for the regionals. At the regional contest at Kennesaw State University, GA, we won the **Best in Service** award
2. Scientific and business mentor for Innovation to Commercialization (I2C) Hub at UAH
3. Started **Hacking for Defense (H4D)** at UAH (and State of Alabama)
   - First offering of H4D in the state of Alabama

- Taught as a regular cyber focused course in Spring and Fall 2020
- Offered as special topics course in Summer 2022
- Obtained collaboration and sponsorship from several defense contractors and DoD agencies

4. UAH CS department ABET Committee 2018, 2019, 2021, 2022
5. UAH CS department syllabus committee

- **Presentations & Talks**

1. "AI Enabled Cyber Security" *Invited talk at UAH Inter-Discipline Expert Authority (IDEA) Committee, 2022*
2. "Targeted Cell Phone Forensics" *Invited talk at Huntsville PD North Alabama Multi-Agency Crime Center, 2022*
3. "Autonomous Agent Based Systems in Connected Battlefields" *Invited talk at Cyber Huntsville Luncheon, 2019*
4. "Connected Intelligent Battlefields: Challenges for the future war-fighter" *Invited Talk Huntsville Cyber Bytes August 2019*
5. "RF-MSiP: RF Based Multi Source Indoor Positioning" *Invited Talk at AFRL MMOI 2019*
6. "Distributed Image Based Localization" *Invited Talk at AFRL MMOI 2018*
7. "Targeted data Extraction from Mobile Devices." *Talk at Florida Department of Law Enforcement with Dr. Sudhir Aggarwal*
8. "Large Scale Localization Systems." *Invited Talk GNU Radio Conference 2017*
9. "Learning Based Direction Finding." *Invited Talk GNU Radio Conference 2017*
10. "TruthCore: Non-parametric Truth Finding." *Conference Presentation IEEE International Conference on Big Data 2016*
11. "Truth Finding." *Invited Talk 2016 Air Force Research Labs Mathematical Modeling & Optimization Institute*
12. "Cheap Approximate Localization Using FM." *Conference Presentation 23rd SIGSPATIAL International Conference on Advances in Geographic Information Systems*
13. "Average Distance Spanners." *Invited Talk 2015 Air Force Research Labs Mathematical Modeling & Optimization Institute*
14. "Feature Extraction from LiDAR." *Invited Talk 2013 Air Force Research Labs Mathematical Modeling & Optimization Institute*

- **Workshops Organized**

1. Workshop of Mathematical Modeling and Optimization Institute at AFRL Eglin AFB (July 2017, July 2018 and July 2019)
2. Workshop on Wireless Sensors and Drones in Internet of Things (Wi-DroIT) 2019
3. Organized 3D Printing Workshops (Nov 2016, March 2017)
4. Organized Workshop on Software Defined Radio jointly with Ettus Research (Nov 2016 @ FSU)
5. Organized Workshop on Software Defined Radio jointly with Ettus Research (Nov 2016 @ AFRL)
6. Organized Workshop on Computational Techniques In Materials Genomics (May 2016 @ AFRL)

- **Leadership Roles**

1. Chief Scientist, Intelligent Robotics Inc.
2. Setup SDRNet @ Lab Eglin Air Force Base, Shalimar, FL
3. Supervising researcher in the Algorithms Group at Florida State University

4. Have co-supervised one completed MS thesis and two MS projects at Florida State University
5. Founding President of Bengali Student Association at Florida State University
6. Founding President for Durga Puja Festival Student Committee at Florida State University (Durga Puja is one one of the largest festivals in India and the largest festival in Eastern India)

- **Community Service**

1. Volunteer from Florida State University for caring for elderly people living at Westminster Oaks Retirement Home, Tallahassee, Florida
2. Volunteer from Florida State University for Big Bend Homeless Coalition, Tallahassee, Florida
3. Regularly support initiatives for improvement of Children's health through UNICEF