

# SUDIPTA BANERJEE

DOCTORAL CANDIDATE

## CONTACT



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## SKILLS

Programming skills include  
MATLAB, Python, C#, MySQL

Mentoring skills include  
designing projects and  
presentations, delivering lectures  
and guiding students through  
lab exercises

## EDUCATION

Ph.D. / Computer Science and  
Engineering

Michigan State University,  
United States

2015 – Current

4.0/4.0 CGPA

M.E. / Electronics and  
Telecommunication Engineering

Jadavpur University, India

2012 – 2014

9.72/10.0 CGPA

B. Tech. / Electronics and  
Communication Engineering

West Bengal University of  
Technology, India

2007 – 2011

8.91/10.0 DGPA

## REFERENCES

Arun Ross, Professor, Michigan  
State University, United States

 [rossarun@cse.msu.edu](mailto:rossarun@cse.msu.edu)

Johannes M. Bauer, Professor,  
Michigan State University, United  
States

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Ananda Shankar Chowdhury,  
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## RESUME

Doctoral candidate in Computer Science and Engineering at Michigan State University, United States under the supervision of Prof. Arun Ross. About to defend thesis in the Fall of 2020. Have research interests in pattern recognition, computer vision, digital image forensics and biometrics. Looking to leverage my research and mentoring skills in seeking a position for a tenure-track assistant professor

## PUBLICATIONS

### Journals

- A. Ross, S. Banerjee and A. Chowdhury, "Security in Smart Cities: A Brief Review of Digital Forensic Schemes for Biometric Data" [To appear]
- S. Banerjee and A. Ross, "Face Phylogeny Tree Using Basis Functions", IEEE Transactions on Biometrics, Behavior and Identity Science (T-BIOM), 2020
- V.N. Gangapure, S. Banerjee and A. S. Chowdhury, "Steerable Local Frequency Based Multispectral Multifocus Image Fusion", Information Fusion, Vol. 23, pp. 99-115, 2015

### Conferences

- S. Banerjee and A. Ross, "One Shot Representational Learning for Joint Biometric and Device Authentication", 25<sup>th</sup> International Conference on Pattern Recognition, 2020 [To appear]
- S. Banerjee, T. Swearingen, R. Shillair, J. Bauer, T. Holt and A. Ross, "Analysis of Cyberattack Patterns Across Longitudinal Data", 2<sup>nd</sup> Annual Conference on the Human Factor in Cybercrime, (Amsterdam, Netherlands), October 2019
- S. Banerjee and A. Ross, "Smartphone Camera De-identification while Preserving Biometric Utility", 10<sup>th</sup> International Conference on Biometrics, Theory, Applications and Systems, (Tampa, USA), 2019
- S. Banerjee and A. Ross, "Face Phylogeny Tree: Deducing Relationships Between Near-Duplicate Face Images Using Legendre Polynomials and Radial Basis Functions", 10<sup>th</sup> International Conference on Biometrics, Theory, Applications and Systems, (Tampa, USA), 2019 *Best Paper and Best Poster Award*
- A. Ross, S. Banerjee, and others, "Some Research Problems in Biometrics: The Future Beckons", 12<sup>th</sup> International Conference on Biometrics, (Crete, Greece), 2019
- S. Banerjee, V. Mirjalili and A. Ross, "Spoofing PRNU Patterns of Iris Sensors while Preserving Iris Recognition", 5<sup>th</sup> International Conference on Identity, Security and Behavior Analysis, (Hyderabad, India), 2019 *Best Paper Award*
- S. Banerjee and A. Ross, "Computing an Image Phylogeny Tree from Photometrically Modified Iris Images", 3<sup>rd</sup> International Conference on Joint Biometrics, (Denver, USA), 2017

### Workshops

- S. Banerjee and A. Ross, "Impact of Photometric Transformations on PRNU Estimation Schemes: A Case Study Using Near-Infrared Ocular Images", International Workshop on Biometrics and Forensics, (Sassari, Italy), 2018 *Best Student Paper Award*
- S. Banerjee and A. Ross, "From Image to Sensor: Comparative Evaluation of Multiple PRNU Estimation Schemes for Identifying Sensors from NIR Iris Images", International Workshop on Biometrics and Forensics, (Coventry, UK), 2017

## EXPERIENCES AND ACHIEVEMENTS

- Experience as a graduate teaching assistant in Michigan State University in Fall 2015 and Spring 2016. Assisted Professor in Fall 2018 and Spring 2020 in preparing lecture slides and grading. Served as a reviewer for Winter Applications on Computer Vision Workshop and Springer Nature Computer Science
- Participated in outreach activities such as Women in Engineering, High School Engineering Institute and Research Experience for Teachers Training program
- Recipient of Michigan State University Graduate Symposium Poster Awards (Honorable Mention) in 2016, 2017 and 2018
- Recipient of Women in Computer Vision Workshop Award (900 USD) to attend workshop in Hawaii, USA, 2017. Selected to attend International Summer School in Biometrics with scholarship (1400 Euros) Alghero, Italy, 2018