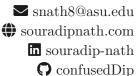
# Souradip Nath

School of Computing and Augmented Intelligence 699 S Mill Ave, Tempe, AZ, 85281



# Research Interests

Access Control and Authorization; Human Factors in Security and Privacy

## EDUCATION

## Arizona State University

Ph.D. in Computer Science, Advisor: Dr. Gail-Joon Ahn, GPA: 4.00/4.00

Arizona State University

M.S. in Computer Science, GPA: 4.00/4.00, Converted to a Ph.D.

# Indian Institute of Engineering Science and Technology, Shibpur

B.Tech. in Information Technology, GPA: 9.93/10.00, First Class with Honors

- Capstone: "Development of an Online Document Tracking System", 2022

- Capstone: "Development of an Academic Search Engine", 2021

Howrah, India Fall 2018–Spring 2022

Tempe, AZ

Tempe, AZ

Fall 2023-Current

Fall 2022-Fall 2023

## Research Experience

#### Arizona State University, SEFCOM Lab

Graduate Research Assistant

Tempe, AZ Spring 2023–Current

- Advisors: Dr. Gail-Joon Ahn, Dr. Jaejong Baek, Dr. Carlos Rubio-Medrano
- Working towards the design and development of a Collaboration-aware Access Management Framework for Scientific Resource Sharing and Privilege Management
- Performed a qualitative study involving researchers and system administrators to derive security requirements
- Surveyed different Access Control Models to examine their applicability to scientific resource access management in large-scale cyberinfrastructures

# Indian Institute of Engineering Science and Technology, Shibpur Summer Research Intern

Howrah, India Summer 2020

- Advisor: Dr. Ruchira Naskar
- Researched "Image Splicing Detection using Deep Neural Networks" with a Proof of Concept implemented using Python frameworks Keras, and Tensorflow
- Proposed a novel Neural Network to classify authentic and spliced images with more than 97% accuracy

## Publications

S. Nath and R. Naskar, "Automated image splicing detection using deep cnn-learned features and ann-based classifier", Signal, Image and Video Processing, vol. 15, pp. 1601–1608, 2021.

## Industry Experience

Deutsche Bank
Pune, India

Technology Analyst Intern

Summer 2021

- Utilized Python Pandas library to clean large datasets of scheduled jobs, conducted data analysis, and came up
  with an optimization algorithm for job scheduling using the Greedy algorithm
- Collaborated with a team of 3 and proposed a general framework for identifying an optimized job scheduling against a multi-parameter cost function

# Professional Service

#### External Reviewer

• [SACMAT] ACM Symposium on Access Control Models and Technologies

2024

## Journal Peer Reviewer

• [MTA] Multimedia Tools and Applications

2024

## **PROJECTS**

An entire list of my projects can be found on my LinkedIn.

# Optimizing Referee Assignment in Vehicle Insurance Companies using Clingo

Tempe, AZ

Knowledge Representation and Reasoning, Class Project

Spring 2023

 Proposed a novel and efficient solution for the Referee Assignment Problem for vehicle insurance companies from the ASP Challenges 2019, using Clingo

#### Digital Chain of Custody

Tempe, AZ

Computer and Network Security, Class Project

Fall 2022

 Collaborated with a team of 3 on an end-to-end design and implementation of a digital equivalent of Chain of Custody (CoC) based on an Object-Oriented design in Python

#### SKILLS

# LANGUAGES

- Programming Languages: C/C++, Python, JavaScript, Java, XML
- Tools, Databases, and OS: Node.JS, Flask, MS Office, SQL, MongoDB, Windows, Linux/Unix, Git
- English: Full Professional Proficiency
- **EXAM:** IELTS Academic (Band 8.5/9.0), 2021
- Bengali: Native / Bilingual Proficiency
- Spanish: Elementary Proficiency

## Relevant Coursework

- Software and Information Assurance: Information and System Security, Computer and Network Forensics, Software Security, Applied Cryptography, Software Engineering, Human-Computer Interaction
- Intelligent and Interactive Systems: Artificial Intelligence, Data Mining, Machine Learning, Internet and Web Technologies, Soft Computing
- Foundations of Computation: Design and Analysis of Algorithms, Formal Language and Automata, Compiler Design, Discrete Mathematics, Knowledge Representation and Reasoning
- Architecture and Networked Systems: Database Management System, Operating Systems, Microprocessors, Computer Architecture, Information and Fuzzy Systems

# SCHOLARSHIPS AND AWARDS

• President of India Gold Medal, University Topper (Undergraduate)	Dec 2022
• IIEST Silver Medal, Department Topper (Information Technology)	Dec 2022
• ASU New American University Scholarship	Aug 2022
• Swami Vivekananda West Bengal Government Merit Scholarship	Aug 2018
• G.P Birla Merit Scholarship	Aug 2018
• State Board Topper – West Bengal Council of Higher Secondary Exam	Jun 2018
• State Board Topper – West Bengal Board of Secondary Exam	May 2016

# Extracurricular Activities

- Member, Fulton Academic Integrity Matters (FAIM) Program, ASU Tempe Fall 2023—Current Served on the academic integrity appeal hearing committee alongside esteemed faculty members.
- Mentor, Topmate.io Summer 2023—Current Provide personalized 1:1 guidance and support to individuals interested in higher education abroad.
- Member, Programming and Activities Board (PAB), ASU Tempe Fall 2023—Spring 2024 Contributed to the success of numerous vibrant college events as an integral member of the organizing committee.
- Member, Senate Undergraduate Committee (SUGC), IIEST, Shibpur Fall 2019–Spring 2022 Played an integral role in the committee dedicated to addressing a range of academic issues.