Supriti Ghosh

BACHELOR & MASTERS IN INFORMATION TECHNOLOGY

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Summary

I finished my bachelor and masters in Information Technology in 2018 and currently working as a data analyst intern at NAMI (National Alliance on Mental Illness) Central Iowa. I want to pursue a research and development oriented career in the field of computer science in a reputed institution. Currently, I am actively looking for masters opportunities in computer science for fall 2020.

Research Interest

Software Engineering	Software Process and Reliability, Empirical Software Engineering, Software Product Line
Data Science	Artificial Intelligence, Machine Learning, Natural Language Processing
Human Computer Interaction	Information System Design, Multimedia, speech, and vision

Education

Jahangirnagar University (JU)   *Dhaka, Bangladesh*

M.SC IN INFORMATION TECHNOLOGY   *January 2016 - January 2018*

- **CGPA:** 3.71/4.0, **Project:** Identify and Recognize Person Using Iris Biometric Security System [GitHub], **Advisor:** Dr. Mohammad Abu Yousuf
- **Courses:** Advanced Database System · Probability & Stochastic Process · Advanced Digital Communication · Information Systems & Securities · Client Server Technologies & Cloud Computing · Advanced Mobile & Cellular Communication Technologies · Software Project Management & Quality Assurance · Geographical Information Systems · E-Commerce & E-Governance · Computer Vision & Image Processing

Jahangirnagar University (JU)   *Dhaka, Bangladesh*

B.SC. IN INFORMATION TECHNOLOGY   *January 2012 - December 2015*

- **CGPA:** 3.58/4.0, **Thesis:** Novel Method to Assess Motion Blur Kernel Parameters and Comparative Study of Restoration Techniques Using Different Image Layouts [Publication], **Advisor:** Dr. Mohammad Abu Yousuf
- **Courses:** Data Structures · Algorithm Analysis · Digital Logic Design · Object Oriented Programming · Operating System · Computer Architecture · Wireless & Mobile Communication · Computer Network Security · Database Management System · Differential & Integral Calculus · Complex Variable & Vector Algebra · Statistical & Probability Theory · Discrete Mathematics · Computational Mathematics · Simulation & Modeling · Electronic Devices & Circuits · Information System Analysis · Computer Network & Internet Technology · Signal & System · Software Engineering · Computer Graphics · Web Technologies · Microprocessor & Interfacing · Telecommunication System · Management Information System · Introduction to Bio-informatics · Artificial Intelligence & Neural Network · Parallel & Distributed System · Multimedia System & Application · Human Computer Interfacing · Digital Image Processing & Pattern Recognition · Mobile Application Development

Professional Experience

NAMI (National Alliance on Mental Illness) Central Iowa   *Ames, IA 50010*

INTERN, DATA ANALYST   *March 2020 - Present*

- **Responsibilities:** Interpreting data, Analyzing results using statistical training, Developing and implementing data collection systems and optimizing statistical efficiency and quality, Filtering and cleaning data by reviewing computer reports, and Work with management to prioritize business and information needs.

Jahangirnagar University   *Dhaka, Bangladesh*

RESEARCH ASSISTANT, INSTITUTE OF INFORMATION TECHNOLOGY   *January 2016 - December 2017*

- **Project: Identify Fingerprint Using Minutiae Matching in Biometric Security System** · This project presents a new method of identifying fingerprint in biometrics security system because fingerprint is one of the best example in biometric security and it can identify personal information and it is much secure than any other biometric identification system. The experimental result exhibits the performance of the proposed method. [Publication]

Technical Skill

Programming Language	C, C++, Java, Python, C#
Database	MySQL, Microsoft SQL Server, Oracle
Web Techologies	HTML, CSS, PHP, JavaScript
Frameworks & IDEs	Eclipse, Visual Studio, .Net, Netbeans, Matlab, PyCharm
Machine Learning	Scikit-learn, Keras
Other Software Skills	Latex, GIT, Adobe Premiere, Shell, CISCO Packet Tracer

Publications

INTERNATIONAL CONFERENCE PAPERS   *Google Scholar*

- **Supriti Ghosh**, Mohammad Abu Yousuf, "Novel Method of Identifying Fingerprint Using Minutiae Matching in Biometric Security System" *International Journal of Advanced Engineering, Management and Science (IJAEMS), ISSN: 2454-1311, Vol-2, Issue-7.* [IJAEMS]
- Munira Akter Lata, **Supriti Ghosh**, Farjana Bobi, Mohammad Abu Yousuf, "Novel method to assess motion blur kernel parameters and comparative study of restoration techniques using different image layouts" 5th *International Conference on Informatics, Electronics and Vision* (ICIEV 2016), Dhaka, Bangladesh. [IEEE XPlore]

Online Certifications

COURSES OFFERED ON ORACLE

- **Autonomous Database** · Oracle University · [continuing]

COURSES OFFERED ON COURSERA

- **Machine Learning with Python** · IBM · [Certification]
- **Introduction to Data Science in Python** · University of Michigan · [GitHub] [Certification]
- **Python Basics** · University of Michigan · [GitHub] [Certification]
- **Python Data Structures** · University of Michigan · [GitHub] [Certification]
- **Using Python to Access Web Data** · University of Michigan · [GitHub] [Certification]
- **Using Databases with Python** · University of Michigan · [GitHub] [Certification]

Academic Projects

Identify and Recognize Person Using Iris Biometric Security System   *Matlab*

MASTERS PROJECT [GITHUB]   *August 2016 - December 2017*

- I have used automated iris recognition for personal identification to verify both uniqueness of the human iris and also its performance as a biometric based system. The performance of research was measured for stored database which is scored 0% each for False Reject Rate (FRR) and False Accept Rate (FAR) and consequently, iris recognition is shown to be a precise and reliable biometric technology.

Final Result Processing System   *C#, MySQL*

SEMESTER PROJECT FOR SOFTWARE ENGINEERING [GITHUB]   *July 2014 - December 2014*

- In this project, developed an application software in C# entitled "Final Result Processing System" which is a desktop application where the teachers can insert students databases, calculate results and Grade Point Average. The teachers could login and update the student databases and results. The mark would be calculated automatically and saved in this software for future use. The application is built through C#, MySQL and provides the flexibility to add, modify or recreate new results for students.

Library Management System   *PHP, MySQL*

SEMESTER PROJECT FOR DATABASE MANAGEMENT SYSTEM [GITHUB]   *April 2014 - June 2014*

- This is a web service based application where the list of books can be saved in the database. People can login and can read books and can also hire or purchase books. The application is built through PHP & MySQL.

Seven-Segment Display   *Hardware*

SEMESTER PROJECT FOR DIGITAL LOGIC DESIGN   *October 2013 - December 2013*

- This project was a hardware based device which is used in basic calculators, digital clocks, electronic meters and other electronic devices. This is a procedure of electronic display device for displaying decimal numerals.

Honors & Awards

2018	**University Merit Scholarship**, Top 10% in Graduate Level, Jahangirnagar University	*Dhaka, Bangladesh*
2016	**University Merit Scholarship**, Top 20% in Undergraduate Level, Jahangirnagar University	*Dhaka, Bangladesh*

Organizations

VOLUNTEER OPPORTUNITIES

- **Mentor**, YSS (Youth Standing Strong), Ames, IA 50010. [Sept 2019 - Present]
- **Program Coordinator**, IEEE Student Branch, Jahangirnagar University, Dhaka, Bangladesh. [May 2015 - May 2016]