

# SABBIR MUHAMMAD SALEH

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## PROFILE SUMMARY

PhD candidate in Computer Science with teaching and research experience in cybersecurity, AI-enabled systems, software engineering, and trustworthy computing. Experienced in teaching in Canadian university- and college-level computing courses, supporting graduate learners, and delivering technology-enhanced instruction. Research focuses on security, privacy, and trust in modern software and AI-driven systems, including anomaly detection, cloud security, CI/CD pipelines, and operational assurance.

## EDUCATION

**Doctor of Philosophy (PhD – waiting for Defence), Computer Science** **January 2021 – July 2026**  
*The University of Western Ontario, London, ON*

- Specialisation: Human Computer-Interaction and Software Engineering
  - Supervisor: Professor Dr. Nazim H. Madhavji
- Courses: Information Visualization, Machine Learning, Unstructured Data, Artificial Intelligence II, Software Design and Architecture, Software Engineering for Big Data Applications and Analytics, Introduction to Data Science

**Master of Science, Computer Science** **January 2014 – December 2015**  
*American International University – Bangladesh (AIUB), Dhaka*

- Specialization: Software Engineering
  - Supervisor: Professor Dr. Khandaker Tabin Hasan
- Master's thesis: Comparative Study on Different Software Methodologies Based on Two Start-Up Companies
  - Thesis Supervisor: Professor Dr. S. A. M. Manzur H. Khan

**Bachelor of Science, Computer Science** **May 2009 – December 2013**  
*American International University – Bangladesh (AIUB), Dhaka*

- Final Year Project: Face Finder Android Application
  - Supervisor: Avishek Ahmed
- Internship: Software Engineer – eAKASH BD Ltd. **(August 2013 - December 2013)**
  - Supervisor: Professor Dr. Dip Nandi

## SELECTED PROFESSIONAL DEVELOPMENT

Participant, Intellectual Property Strategy Boot Camp

**Western University Faculty of Law and WORLD Discoveries**

**Fall 2023**

Six-session professional development program on

- intellectual property strategy,
- patents, trademarks, industrial design, copyright, and
- commercialisation of intellectual property rights

## RELEVANT EXPERIENCE

**Professor (Part-Time)**

**Winter 2024 – Fall 2025**

School of Information Technology, **Fanshawe College**, London, ON, Canada

Courses taught:

Software Design Patterns (Winter 2024)

Python Programming (Summer 2025, Winter 2025, Fall 2024)

Network Enterprise Technologies and Fundamentals (Fall 2025)

**Lecturer (Limited Duties)**

**Fall 2024 – Winter 2025**

*Department of Computer Science, University of Western Ontario, London, ON, Canada*

Course Taught: **Game Development Project** – Fourth-year Course (4000-level)

Achievement: **Supervised 25 students in completing their final-year Projects (Minor in Game Development)**

*Department of Electrical and Computer Engineering, University of Western Ontario, London, ON, Canada*

Course Taught: **Programming for Engineers (Python)** – Graduate Level Course (9000-level)

**Graduate Research Assistant (Graduate Fellow)**

**January 2021 – Present**

*Department of Computer Science, University of Western Ontario, London, ON, Canada*

*Working closely with Professor Nazim H. Madhavji*

*Co-supervised one Graduate Student (MSc in Computer Science)*

*Co-supervised eight Undergraduate Students (Honors Specialization in Computer Science)*

## Graduate Teaching Assistant

Department of Computer Science, **University of Western Ontario**, London, ON, Canada

CS 4473 and 9551 – <b>Software Requirements Engineering</b>	Winter 2026
CS 2211 – <b>Software Tools and Systems Programming</b>	Summer 2025, Fall 2024
CS 1027 – <b>Computer Science Fundamentals II</b>	Summer 2024
CS 1032 – <b>Information Systems and Design</b>	Summer 2024, Summer 2021
CS 3307 – <b>Object-Oriented Design and Analysis</b>	Winter 2024, Fall 2023
CS 2034 – <b>Data Analytics: Principles and Tools</b>	Winter 2023
CS 4471 – <b>Software Design and Architecture</b>	Fall 2022

## Assistant Professor (ON STUDY LEAVE SINCE APRIL 2021) – 03 years

**April 2018 – April 2021**

Department of Computer Science and Engineering

City University, Dhaka, Bangladesh

## Lecturer - 3.5 years

**November 2014 – April 2018**

Department of Computer Science and Engineering

University of South Asia, Dhaka, Bangladesh

Responsibilities in the above roles: **Lecturer and Assistant Professor**

- Department/Program Coordinator
- Prepared updated syllabus and Outcome-Based Curriculum (OBC) for the CSE Department
- Prepared course materials for students
- Provided lectures and conducted labs
- Supervised Undergraduate Final Year Students' projects (more than 50 students over the six and a half years)

## Program Development and Accreditation-Ready Contributions

Department of Computer Science and Engineering

City University, Dhaka, Bangladesh

University of South Asia, Dhaka, Bangladesh

Actively contributed to –

(a) Outcome-based curriculum work, (b) Syllabus updates across core courses, (c) Advising and coordination responsibilities, and (d) Library Updates.

## Lecturer

**July 2014 – November 2014**

Department of Information and Communication Technology

Stamford College, Dhaka, Bangladesh

Achievement: Established a High-End Computer Laboratory for the High School students

## Computer Instructor (Part-Time Basis)

**April 2012 – July 2014**

Non-Government Organisation's ORPHANS' Trainer (Computer Fundamentals)

Taught more than 150 High School students

## RESEARCH WORKS and SELECTED PUBLICATIONS

The following selected publications stem from my **PhD** research and have accumulated **92** citations as of **June 16, 2026**.

1. **Saleh, Sabbir M.**, Nazim Madhavji and John Steinbacher, (2024). A Systematic Literature Review on Continuous Integration and Deployment (CI/CD) for Secure Cloud Computing. In Proceedings of the 20th International Conference on Web Information Systems and Technologies - Volume 1: WEBIST; ISBN 978-989-758-718-4, SciTePress, pages 331-341. DOI: <https://doi.org/10.5220/0013018500003825>
2. **Saleh, Sabbir M.**, Nazim Madhavji and John Steinbacher, "Blockchain for Securing CI/CD Pipeline: A Review on Tools, Frameworks, and Challenges," 2024 7th Conference on Cloud and Internet of Things (CIoT), Montreal, QC, Canada, 2024, pp. 1-5, <https://doi.org/10.1109/CIoT63799.2024.10757084>
3. **Saleh, Sabbir M.**, Ibrahim Mohammed Sayem, Nazim Madhavji and John Steinbacher. 2024. Advancing Software Security and Reliability in Cloud Platforms through AI-based Anomaly Detection. In Proceedings of the 2024 Cloud Computing Security Workshop (CCSW '24) co-located with the ACM Conference on Computer and Communications Security (CCS), October 14–18, **2024**, Salt Lake City, UT, USA. **ACM**, New York, NY, USA, 10 pages <https://doi.org/10.1145/3689938.3694779>

4. **Saleh, Sabbir M.**, Nazim Madhavji and John Steinbacher, "Enhancing Cloud Security Through Topic Modelling," 2024 28th ACIS International Winter Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD-Winter), Taichung, Taiwan, December 04-06, 2024, pp. 65-71, <http://doi.org/10.1109/SNPD-Winter67015.2024.00020>
5. **Saleh, Sabbir M.**, Nazim Madhavji and John Steinbacher, "Towards a Blockchain-Based CI/CD Framework to Enhance Security in Cloud Environments," 2025 20th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE), April 04-06, 2025. Technically co-sponsored by IEEE. DOI: <https://doi.org/10.5220/0013298200003928>
6. **Saleh, Sabbir M.**, "DevSecLogs: AI-Powered, Tamper-Evident Log Intelligence for Secure CI/CD Pipelines," 2025 IEEE International Conference on Software Maintenance and Evolution (ICSME), Auckland, New Zealand, September 07-12, 2025, pp. 890-894, DOI: <https://doi.org/10.1109/ICSME64153.2025.00101>
7. **Saleh, Sabbir M.**, Nazim Madhavji and John Steinbacher, "Toward Stage-Aware Container Security in CI/CD: A Practical Review", International Conference On Systems Engineering 2025, October 27-28, 2025, Warsaw, Poland. (in press)
8. **Saleh, Sabbir M.**, Ifat, Md. Nafiz Al, Nazim Madhavji and John Steinbacher, "A Threat-Oriented Study of API Security Challenges in CI/CD Pipelines," 2025 IEEE International Conference on Cloud Computing Technology and Science (CloudCom), Shenzhen, China, 2025, pp. 1-8, DOI: <https://doi.org/10.1109/CloudCom67567.2025.11331540>
9. **Saleh, Sabbir M.**, Md Nafiz Al Ifat, Nazim H. Madhavji, and John Steinbacher. 2026. A Defence-Oriented Study of API Security in CI/CD Pipelines. In Proceedings of the 2025 10th International Conference on Cloud Computing and Internet of Things (CCIOT '25). Association for Computing Machinery, New York, NY, USA, 33–42. DOI: <https://doi.org/10.1145/3785520.3785526>
10. **Saleh, Sabbir M.**, Nazim H. Madhavji, and John Steinbacher. 2026. Systematic Review of Identity-Centric Security in Cloud-Native CI/CD Pipelines. In Proceedings of the 2025 10th International Conference on Cloud Computing and Internet of Things (CCIOT '25). Association for Computing Machinery, New York, NY, USA, 23–32. DOI: <https://doi.org/10.1145/3785520.3785525>

**FOR MORE:** [https://scholar.google.com/citations?hl=en&user=mm7bYG4AAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=en&user=mm7bYG4AAAAJ&view_op=list_works&sortby=pubdate)

## RESEARCH and PROJECT HIGHLIGHTS

- Developed resource allocation optimisation methods for secure CI/CD pipelines.
- Applied CNN-LSTM hybrid model for anomaly detection and decision-support in cloud analytics.
- IBM Cloud project: Integrated topic modelling and optimisation-based alert scoring in CI/CD logs.

## REVIEWER OF JOURNALS (SCOPUS INDEXED)

January 2020 – Present

1. IEEE Transactions on Computational Social Systems (TCSS)  
ISSN Online: 2329-924X  
URL: <https://www.ieeescmc.org/publications/transactions-on-computational-social-systems/>
2. Information and Software Technology (IST)  
ISSN Online: 0950-5849  
URL: <https://www.sciencedirect.com/journal/information-and-software-technology/>
3. IEEE Access  
ISSN: 2169-3536 EISSN: 2169-3536 (IEEE Access uses the same identifier for both its online and electronic versions)  
SCOPUS indexed Journal – <https://www.scopus.com/sourceid/21100374601>  
URL: <https://ieeaccess.ieee.org/>
4. IEEE Internet of Things Journal  
ISSN: 2327-4662 EISSN: 2327-4662  
SCOPUS indexed Journal – <https://www.scopus.com/sourceid/21100338350>  
URL: <https://iee-iotj.org/>
5. International Journal of Information Technology and Web Engineering (IJITWE)  
ISSN Print: 1554-1045 ISSN Online: 1554-1053  
SCOPUS indexed Journal – <https://www.scopus.com/sourceid/11900154400>  
URL: <https://dl.acm.org/journal/ijitwe-igi>
6. IGI Global - International Journal of Software Innovation (IJSI)  
ISSN: 2166-7160 EISSN: 2166-7179  
SCOPUS indexed Journal – <https://www.scopus.com/sourceid/21100823281>  
URL: <https://dl.acm.org/journal/ijsi>

## PC MEMBER OF CONFERENCES:

1. IEEE International Conference on Software Maintenance and Evolution (ICSME) **2026** –  
*Tool Demonstration and Data Showcase Track*

## REVIEWER OF CONFERENCES:

1. International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ) **2026**
2. IEEE International Conference on Artificial Intelligence, Computer, Data Sciences and Applications (ACDSA) **2026**
3. IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE) **2021, 2023, 2025**
4. IEEE International Requirements Engineering Conference (RE) **2025**
5. IEEE International Humanitarian Technology Conference (IEEE IHTC) **2025**
6. ACM International Conference on Computing Advancements (ICCA) **2024**
7. International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE) **2023, 2024**
8. IEEE International Conference on Mechanical, Automotive and Mechatronics Engineering (ICMAME) **2023**
9. Euromicro Conference Series on Software Engineering and Advanced Applications (SEAA) **2023**
10. IEEE International Conference on Electrical, Computer and Energy Technologies (ICECET) **2022**
11. IEEE International Conference on Electrical, Computer, Communications and Mechatronics Engineering (ICECCME) **2022**

## EDITORIAL BOARD MEMBER

1. Bangladesh Journal of Public Health (BJPH) ISSN : 2518-3737 – Assistant Editor (December 2017 – Present)
2. International Journal of Information Technology and Web Engineering (IJITWE) (January 2024 – Present)  
ISSN Print: 1554-1045 ISSN Online: 1554-1053  
SCOPUS indexed Journal – <https://www.scopus.com/sourceid/11900154400>

## ADMINISTRATIVE, PROCTORIAL and other EXPERIENCE in UNIVERSITY

### Proctor

October 2022 – Present

Departments: Nursing, Biology, Mathematics, Physics and Astronomy, Engineering  
*The University of Western Ontario, London, ON, Canada*

### Department/Program Coordinator (Manager) – 2 years

April 2019 – April 2021

Department of Computer Science and Engineering  
*City University, Dhaka, Bangladesh*

### Department/Program Coordinator (Manager) – 3+ years

November 2014 – April 2018

Department of Computer Science and Engineering  
*University of South Asia, Dhaka, Bangladesh*

At both upper positions, **Department/Program Coordinator (Manager)**, I provided comprehensive advising to students, prepared class and exam routines, assigned proctorial duties, etc., and handled administrative work.

### Western Safety Ambassador

May 2022 – February 2023

*The University of Western Ontario, London, ON, Canada*

### Health and Safety Advisor

November 2021 – April 2022

*The University of Western Ontario, London, ON, Canada*

## INDUSTRIAL EXPERIENCE

### Magento Database Officer (Night Shift)

July 2014 – October 2014

*Helix IT Solutions, Dhaka, Bangladesh*

### Programr and Analyst

January 2014 – June 2014

*Krishibid Group, Dhaka, Bangladesh*

### Software Engineer

August 2013 – December 2013

*eAKASH BD Ltd., Dhaka, Bangladesh*

### Research and Development Project Manager (Remote)

August 2020 – January 2024

*TechViduals Software Development*

## Service and leadership

- Graduate Student Constituency, University Secretariat: Senate Member (Jul 2024 – Jun 2025).
- Society of Graduate Students (SOGS), Western University  
Councillor, Department of Computer Science (Fall 2021 – Fall 2022)

- SOGS committees:
  - Subsidies Committee (Member, Summer 2022 – Present);
  - Academic Committee (Member, Summer 2025 – Fall 2025);
  - International Graduate Students Issues Committee (IGSIC) (Member, Fall 2021 – Winter 2023);
  - Graduate Students Issues Committee (Member, Fall 2021 – Winter 2023)
- AIUB Oratory Club, American International University–Bangladesh:
  - President (Jul 2013 – Jul 2014);
  - Assistant General Secretary (Apr 2012–Jul 2013);
  - Debater/Public Speaker (Jun 2009 – Apr 2012).

#### **Additional activities**

- Advisor, City University Computer Club (Summer 2018 – Fall 2020)
- Team coach, Inter University Programming Contest (2015), Bangladesh;
- Team coach, RESONANCE V9.0 (2017), India.

#### **REFERENCES**

##### **Dr. Nazim H. Madhavji**

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 Western University  
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##### **Dr. Mohammed Ashikur Rahman**

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 Dhaka, Bangladesh  
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##### **Syed Maruful Huq**

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