

Y A JOARDER

4080 Rue Cool Apt. 8, Verdun,
QC H4G 1B4
Canada

Cell: +1(438) 368-9095

Email: yajoarder@gmail.com

Website: <https://y-a-joarder-portfolio.web.app/>

Languages: English (Fluent) & French (Beginner)

PROFESSIONAL SUMMARY:

- Ph.D. Candidate in Information and Systems Engineering at Concordia University, Montreal, Canada;
- More than 5 years of experience as a Graduate Research Assistant in Bangladesh and Canada;
- More than 4 years of teaching experience in CSE and Cybersecurity in Bangladesh and Canada;
- Around 2 years of experience as a Software Testing Engineer and IT Analyst in Bangladesh and Canada;
- Researcher in Cybersecurity, Protocol Security, AI, IoT, ML, Deep Learning, Metaverse & Data Science;
- Professional expertise in QUIC, AI, IoT, ML, DL, RL, Federated Learning & Cloud Computing;
- Excellent analytical capacity, organizing efficiency, meticulous approach & problem-solving aptitude;
- Commendable leadership quality, teamwork skills & autonomy with perfection even under pressure.

EDUCATION:

Ph.D. (Doctor of Philosophy)

2021 – Current
Information & Systems Engineering,
Concordia Institute for Information Systems
Engineering (CIISE),
Concordia University,
Montreal, Quebec, Canada
Expected Graduation Date: December, 2024

M.Sc. (Master of Science)

2014 – 2015
Department of Information & Communication Engineering,
Islamic University (IU), Bangladesh

B.Sc. (Bachelor of Science)

2010 – 2014
Department of Information & Communication Engineering,
Islamic University (IU), Bangladesh

PROFESSIONAL EXPERIENCE:

1. Graduate Research Assistant (GRA)

January 2021 – Current
Current Lab: Next Generation Network
Security (NGNSec) Lab,
Concordia Institute for Information Systems
Engineering (CIISE),
Concordia University,
Montreal, Quebec, Canada

2. Graduate Teaching Assistant (GTA)

September 2021 – Current
Concordia University,
Montreal, Quebec, Canada

Teaching Assistantship Details:

• Concordia Institute for Information Systems Engineering (Sep. 2022 – Current)
Teaching Assistant: Network Security Architecture and Management (INSE 6170)

• Centre for Engineering in Society (Sep. 2021 – Current)
Teaching Assistant: Professional Practice and Responsibility (ENGR 201)

• Dept. of Electrical and Computer Engineering (Jan. 2024 – Current)
Teaching Assistant: Operating Systems (COEN 346)

• Dept. of Electrical and Computer Engineering (Jan. 2024 – Current)
Teaching Assistant: Telecommunication Networks (ELEC 366)

- Dept. of Electrical and Computer Engineering (Sep. 2023 – Dec. 2023)
Teaching Assistant: Communication Networks and Protocols (COEN 366)
- Dept. of Computer Science and Software Engineering (May 2023 – June 2023)
Teaching Assistant: Applied Artificial Intelligence (COMP 6721)
- Dept. of Electrical and Computer Engineering (Jul. 2023 - Aug. 2023)
Teaching Assistant: Electronics I (ELEC 311)
- Dept. of Electrical and Computer Engineering (Jul. 2023 - Aug. 2023)
Teaching Assistant: Applied Advanced Calculus (ENGR 233)
- Dept. of Computer Science and Software Engineering (Jan. 2023 – Apr. 2023)
Teaching Assistant: Computer Networks and Protocol (COMP 6461)
- Dept. of Computer Science and Software Engineering (Jan. 2022 – Apr. 2023)
Teaching Assistant: Principles of Programming Languages (COMP 348)
- Dept. of Electrical and Computer Engineering (Jan. 2022 - Apr. 2022)
Teaching Assistant: Programming Methodology-1 (COEN 243)
- Dept. of Computer Science and Software Engineering (Sep. 2022 – Dec 2022)
Teaching Assistant: Data Communications & Computer Networks (COMP 445)
- Concordia Institute for Information Systems Engineering (Jan. 2022 - Apr. 2022)
Teaching Assistant: Cryptographic Protocols and Network Security (INSE 6120)

- 3. IT Analyst** September 2021 – January 2022
9441-0503 Quebec Inc,
Montreal, Canada
- 4. Lecturer** July 2018 – September 2020
Department of Computer Science & Engineering (CSE),
World University of Bangladesh (WUB), Dhaka, Bangladesh
- 5. Research Assistant (RA)** June 2015 – July 2018
Computer Vision & Intelligent Interfacing Lab (CVIIL),
Islamic University (IU), Bangladesh
- 6. Software Testing Engineer** February 2016 – June 2017
Part-time employee
Spider IT Ltd.,
Dhaka, Bangladesh

SKILLS IN SOFTWARE, SYSTEMS & HARDWARE:

- Languages: C, C++, Python, Java, JavaScript, VBScript, PHP, HTML5, CSS3, Prolog, Bash
- Parallel Computing: MPI, CUDA, EC2, Elastic MapReduce, Hadoop, Spark
- Tools: OpenCV, WEKA, OpenStack, Cisco Packet Tracer, Cloud Foundry, Kubernetes, Docker, AWS, GCP, Azure, Keras, TensorFlow, Jira, Arduino, Raspberry Pi
- Scientific Computing: MATLAB, Mathematica, NumPy, SciPy, Pandas, Scikit, PyTorch, Matplotlib
- Applications: LATEX, Adobe Photoshop, MS Office, Model Checkers: UPPAAL, SMV, NuSMV, MS Power BI, MS SharePoint, MS Teams
- Cyber-Security Related Tools: Acunetix, Wireshark, Zed Attack Proxy (ZAP) , Burp Suite, Invisploit, Intruder, Nmap, Metasploit, Aircrack-NG, OpenVAS, SQLMap, NetStumbler, Ettercap, Maltego, Nikto, John The Ripper, Angry IP Scanner, WPScan, Hydra, SET, BeEF, Fern and Autopsy
- Operating Systems: Linux, macOS, Microsoft Windows
- DBMS: NoSQL: MongoDB, SQL: MySQL, Oracle
- SCM Tools: Git, Gitlab, GitHub

PUBLICATIONS:

INTERNATIONAL CONFERENCES:

1. **Y A Joarder** and Carol J Fung – “QUICPro: Integrating Deep Reinforcement Learning to Defend against QUIC Handshake Flooding Attacks” submitted to Applied Networking Research Workshop 2024 (ANRW’24), Vancouver, Canada
2. **Y A Joarder**, Benjamin Teyssier and Carol J Fung – “QUICwand: A Machine Learning Optimization-based Hybrid Defense Approach Against QUIC Flooding Attacks” **accepted** into 2024 20th International Conference on the Design of Reliable Communication Networks (DRCN)
3. Benjamin Teyssier, **Y A Joarder** and Carol J Fung – “QUICShield: A Rapid Detection Mechanism Against QUIC-Flooding Attacks” **accepted** in 2023 IEEE Virtual Conference on Communications (VCC)
<https://ieeexplore.ieee.org/abstract/document/10474735/>
4. Benjamin Teyssier, **Y A Joarder** and Carol J Fung – “An Empirical Approach to Evaluate the Resilience of QUIC Protocol against Handshake Flood Attacks” published in CNSM 2023 (Joint 1st Author)
<https://ieeexplore.ieee.org/abstract/document/10327907/>
5. **Y A Joarder** and Carol J Fung, “A Survey on the Security Issues of QUIC” in 6th Cyber Security in Networking Conference (CSNet 2022)
<https://ieeexplore.ieee.org/document/9955622>
6. Gaith Rjoub, Jamal Bentahar and **Y A Joarder** (2022). Active Federated YOLOR Model for Enhancing Autonomous Vehicles Safety. In: Awan, I., Younas, M., Poniszewska-Marañda, A. (eds) Mobile Web and Intelligent Information Systems. MobiWIS 2022. Lecture Notes in Computer Science, vol 13475. Springer, Cham.
https://link.springer.com/chapter/10.1007/978-3-031-14391-5_4
7. **Y A Joarder**, Paresh Chandra Barman, and Md Zahidul Islam, “ Enhancement of ANN-based Offline Hand Written Character Recognition Using Gradient and Geometric Feature Extraction Techniques ” in the preceding of International Conference on Human-Computer Interaction, Vancouver, Canada, July 2017, pp 145-151
https://link.springer.com/chapter/10.1007/978-3-319-58750-9_20

[Only one research work accepted from Bangladesh in poster category]
8. **Y A Joarder**, Bipul Hossain, Md Jashim Uddin, and Md Zahidul Islam – “A Novel Hand Written Technique Using Touch-Less Finger Gesture Movement for Human Computer Interaction” in: Kurosu M. (eds) Human-Computer Interaction. Interaction Technologies. HCI 2018. Lecture Notes in Computer Science, vol 10903. Springer, Cham. HCI 2018: [Human-Computer Interaction. Interaction Technologies](#) pp 285-296
https://link.springer.com/chapter/10.1007/978-3-319-91250-9_22

[Only one research work accepted from Bangladesh in paper category]
9. Bipul Hossain, Feroza Naznin , **Y A Joarder**, and Md Zahidul Islam – “ Recognition and Solution for Handwritten Equation Using Convolutional Neural Network ” in Joint 2018 7th International Conference on Informatics, Electronics & Vision (ICIEV) & 2nd International Conference on Imaging, Vision & Pattern Recognition (icIVPR), Kitakyushu, Japan.
<https://ieeexplore.ieee.org/document/8640991>

INTERNATIONAL JOURNALS:

10. **Y A Joarder** and Carol J Fung, "QUIC Security: A State of Art Survey on Security Vulnerabilities and Future Research Perspectives," **submitted** in IEEE Transactions on Network and Service Management (Under Review)
11. **Y A Joarder**, Kh. Mustafizur Rahman, & Ahsan Ullah. (2019). "A Hybrid Partitioning Algorithm for Robust Big Data Clustering and Analysis" in Journal of Network Security and Data Mining, 2(3), 1–16.
<http://doi.org/10.5281/zenodo.3465227>
12. **Y A Joarder**, Feroza Naznin, Md Abdul Awal and Md Zahidul Islam – "An Improved Hybrid Evolutionary Clustering Algorithm to Mitigate Empty Clustering Problem" in International Journal of Computer Engineering and Information Technology (IJCEIT) 11, no. 9 (2019): 193-199.
<http://www.ijceit.org/published/volume11/issue9/index.php>
13. **Y A Joarder**, Kh. Mustafizur Rahman, & Fabiha Faiz Mahi. (2020). "Uplifted Tissue Characterization and Classification of Fatty Liver Disease from Ultrasound Images" in Advancement in Image Processing and Pattern Recognition, 3(3), 1–13.
<https://zenodo.org/record/4014957>

BOOK CHAPTERS:

1. Part of the [Communications in Computer and Information Science](#) book series (CCIS, volume 713)
2. Part of the [Lecture Notes in Computer Science](#) book series (LNCS, volume 10903)

POSTER PAPER:

1. **Y A Joarder** and Md. Safar Uddin Dipu – "Point Detection Based A Smart Pen Featured Listening and Writing Capable Robotic Arm" In the proceedings of International Workshop on Computer Vision and Intelligent Systems (IWCVIS 2019), 26 December 2019; BRAC University, 66 Mohakhali, Dhaka-1212, Bangladesh.
<http://iwcvis.bracu.ac.bd/?fbclid=IwAR3668GDW0h1Nwl8ZRpBrfk7Uz2645O52XsPnI1vbzQHlykZKXvVwLOZfDM>

IN PREPARATION:

1. **Y A Joarder**, Emran Hossain, and Al Faisal Mahmud – "Clustering and Classification with Non-Existence Features: A Sentenced Dissimilarity Measure Based Technique" in arXiv library in of Cornell University, Ithaca, New York.
<https://arxiv.org/abs/2002.10411v1>
2. **Y A Joarder**, and Mosabbir Ahmed – "A Hybrid Algorithm Based Robust Big Data Clustering for Solving Unhealthy Initialization, Dynamic Centroid Selection and Empty clustering Problems with Analysis" in arXiv library in of Cornell University, Ithaca, New York.
<https://arxiv.org/abs/2002.09380>

ACADEMIC THESIS: (in M.Sc.)

1. A Novel Hybrid Model Algorithm for Robust Big Data Clustering and Analysis

ACADEMIC PROJECTS: (in B.Sc.)

1. Improvement of ANN-based Offline Handwritten Character Recognition Using Gradient and Geometric Feature Extraction Techniques
2. University Library Automation System

PARTICIPATIONS & ORAL PRESENTATION:

1. 3MT & MT180 Competitions,
Concordia University, Montreal
Finalist,

Montreal, Canada

2. International Cybersecurity Forum 2022
FIC North America 2022,
Montreal, Canada
3. Online Research Talk on "QUIC Protocol and Its Past, Current and Future" 2022
Department of Information and Communication Technology (DoICT) Research Lab,
Dhaka, Bangladesh
4. International Workshop on Computer Vision and Intelligent Systems (IWCVIS) 2019
BRAC University (BRACU), 66 Mohakhali,
Dhaka-1212, Bangladesh
5. International Workshop on Computer Vision and Application (IWCVA) 2019
Southeast University (SU), Tejgaon Campus,
Dhaka, Bangladesh
6. National Collegiate Programming Contest: 2018
IUBAT NCPC 2018
Date: August 03, 2018 - August 04, 2018
Ranking: 46
Team: IU_Valak
7. 2017 International Conference on 2017
Networking, Systems and Security (NSyS),
Bangladesh University of Engineering and Technology (BUET),
Dhaka, Bangladesh
8. International Collegiate Programming Contest: 2017
ACM ICPC 2017 Dhaka Regional Contest
Date: November 11 & 12, 2017
Hosted By: University of Asia Pasific
Ranking: 88
Team : IU_sudo
9. BRB Cables NDF BD 3rd National Debate Festival '07 2007
Organized by National Debate Federation Bangladesh (NDF BD)
Kushtia Zilla School, Kushtia, Bangladesh

SCOLARSHIPS:

1. Concordia International Tuition Award of Excellence 2021
2. Supervisor's Research Grants and Faculty Research Support 2021-Current

AWARDS:

1. Muhammad Qudrat-i-Khuda Science Speaker Award 2017
The best research work award in Bangladesh,
Issued by the Red-Green Research Centre, Dhaka, Bangladesh
2. Champion, Intra University Literary Competition 2012
Islamic University, Kushtia, Bangladesh
3. 1st, Kushtia Science Fair (Math Competition) 2006
Kushtia, Bangladesh
4. Champion, District Primary School Debate Competition 2001
Kalkini Model Primary school, Kalkini, Madaripur, Bangladesh

LEADERSHIP EXPERIENCE:

1. Volanteer, HackConcordia 2023

Concordia University,
Montreal, Quebec, Canada

2. Proctor, Collegiate Penetration Testing Competition (CPTC)
Concordia University,
Montreal, Quebec, Canada

2022

3. General Secretary, Student Association of ICE (SAICE),
Department of Information and Communication Engineering,
Islamic University, Bangladesh

2015-2016

ACADEMIC TRAINING:

1. Academic Research and Paper Writing from Scratch
2. Networking Training
3. Linux (Ubuntu, Kali)
4. PLC training
5. Microcontroller training
6. IoT (Internet of Things)
7. Teaching Learning Assessment and Research Methodology training by IQAC-WUB

MEMBERSHIP:

1. Golden Key International Honour Society
2. International Association of Engineers (IAENG)
3. Bangladesh Computer Society
4. Public Service Alliance of Canada (PSAC) / Alliance de la Fonction publique du Canada (AFPC)

REVIEWER:

1. IEEE Transactions on Knowledge and Data Engineering (TKDE)
2. Informatics in Medicine Unlocked (Elsevier)
3. Computer Networks
4. International Conference on Network and Service Management

I hereby declare that all the information provided herein is true and accurate.

Y A Joarder
Montreal, Canada