

## Fahim Anzum

PhD Student, Graduate Assistant - Research  
Department of Computer Science  
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## Research Interest

Machine Learning and Deep Learning with a focus on real-world problems (*i.e.*, *Online Social Networks, Biometric Technology, Healthcare, etc.*); Human-in-the-loop Computing; Human-Computer Interaction (HCI); Human-AI Interaction

## Education

- Doctor of Philosophy: Computer Science**  
University of Calgary  
**Supervisor:** Dr. Marina Gavrilova  
**Research Lab:** Biometric Technologies Laboratory (BT Lab)  
**Expected:** Aug 2025  
Calgary, Canada
- Master of Science: Computer Science (CGPA: 4.00/4.00)**  
University of Calgary  
**Supervisor:** Dr. Mario Costa Sousa, Dr. Usman Alim  
**M.Sc. Thesis:** Exploring Convolutional Neural Networks and Transfer Learning for Oil Sands Drill Core Image Analysis  
**Uri:** <https://prism.ucalgary.ca/handle/1880/113786>  
**Aug 2021**  
Calgary, Canada
- Bachelor of Science: Computer Science and Engineering (CGPA: 3.79/4.00)**  
Military Institute of Science and Technology (MIST),  
Bangladesh University of Professionals (BUP)  
**B.Sc. Thesis:** A New Algorithm to Compute Single Source Shortest Path in a Real Edge Weighted Graph to Optimize Time Complexity  
**Jan 2018**  
Dhaka, Bangladesh

## Publication (<https://scholar.google.com/citations?user=gziajGcAAAAI&hl=en>)

- Anzum, F., Asha, A.Z., Gavrilova, M.L., 2022, September. **Biases, Fairness, and Implications of Using AI in Social Media Data Mining**. Accepted to be published in *2022 International Conference on Cyberworlds (CW)*.
- M. Gavrilova, F. Anzum, AWS H. Bari, Y. Bhatia, F. Iffath, Q. Ohi, Md. Shopon, Z. Wahid, **A Multi-Faceted Role of Biometrics in Online Security, Privacy and Trustworthy Decision Making**, Chapter, in *Breakthroughs in Digital Biometrics and Forensics*, Kevin Daimi (Ed), Springer, 2022 (in print)
- Asha, A.Z., Anzum, F., Finn, P., Sharlin, E. and Costa Sousa, M., 2020, September. **Designing External Automotive Displays: VR Prototypes and Analysis**. In *12th International Conference on Automotive User Interfaces and Interactive Vehicular Applications* (pp. 74-82).
- Anzum, F., Ahmed, F., Azim, M. S., Hossain, M., Zaman, S., Hasib, F., & Al Ahsan, S. (2018, June). **Smart Self Position Aligning Chair for a Modern Conference Room**. In *2018 IEEE/ACIS 17th International Conference on Computer and Information Science (ICIS)* (pp. 263-268). IEEE.
- Zavin, A., Anzum, F., Rahman, S. F., Islam, M. N., & Hoque, M. (2018, December). **Towards Developing an Intelligent Fire Exit Guidance System Using Informed Search Technique**. In *2018 21st International Conference of Computer and Information Technology (ICCIT)* (pp. 1-6). IEEE.
- Sharif, A., Anzum, F., Zavin, A., Suha, S. A., Ibnat, A., & Islam, M. N. (2018, July). **Exploring the Opportunities and Challenges of Adopting Augmented Reality in Education in a Developing Country**. In *2018 IEEE 18th International Conference on Advanced Learning Technologies (ICALT)* (pp. 364-366). IEEE.
- Ahmed, F., Anzum, F., Islam, M. N., Abdullah, W. M., Al Ahsan, S., & Rana, M. (2018, June). **A New Algorithm to Compute Single Source Shortest Path in a Real Edge Weighted Graph to Optimize Time Complexity**. In *2018 IEEE/ACIS 17th International Conference on Computer and Information Science (ICIS)* (pp. 185-191). IEEE.

## Awards & Scholarships

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- **“2021 Alberta Innovates Graduate Student Scholarship”** (2021-2025) at the University of Calgary
  - Valued at CA\$ 31,000/year
- **“Eyes High International Doctoral Recruitment Scholarship”** (2021-2025) at the University of Calgary
  - Valued at CA\$ 15,000/year
- **“International Graduate Tuition Award”** (2021-2025) at the University of Calgary
  - Valued at CA\$ 3,000/year
- **“Department Research Award”** (2020-21) at the University of Calgary
  - Valued at CA\$ 11,000 (Have been awarded for Winter 2021)
- **“Mitacs-Accelerate Graduate Research Internship”** (2019-2021) at the University of Calgary
  - Valued at CA\$ 50,000 for 2 years
- **“International Graduate Recruitment Award”** (2019) at the University of Calgary
  - Valued at CA\$ 2,000 received on September 2019
- **“Visa Differential Scholarship”** (2019) at the University of Calgary
  - Valued at CA\$ 4,126.17 for 1 year
- **“MIST Commandant’s List Award”** (2015, 2016) in MIST for academic distinction
- **“HSC Scholarship (2012)”** - stood 19<sup>th</sup> in Dhaka Education Board, Bangladesh
- **“Junior School Scholarship (2008)”** on 8<sup>th</sup> grades, Dhaka, Bangladesh

## Work Experience & Training

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| <ul style="list-style-type: none"> <li>• <b>University of Calgary</b><br/>Graduate Assistant - Teaching<br/><b>Conducted Courses:</b> <ul style="list-style-type: none"> <li>- Data-201 (Thinking with Data)</li> <li>- CPSC-217 (Introduction to Computer Science for Multidisciplinary Studies-I)</li> <li>- CPSC-319 (Data Structures, Algorithms and Their Application)</li> </ul> </li> </ul> | <b>Calgary, AB, Canada</b><br>Fall 2021, Spring 2020,<br>Winter 2020                |
| <ul style="list-style-type: none"> <li>• <b>Suncor Energy</b><br/>Research Intern</li> </ul>   | <b>Calgary, AB, Canada</b><br>Sept 2019 – Sept 2021                                 |
| <ul style="list-style-type: none"> <li>• <b>United International University (UIU)</b><br/>Lecturer, Dept. of Computer Science and Engineering (CSE)<br/><b>Course Conducted:</b> Computer Graphics</li> </ul>  | <b>Dhaka, Bangladesh</b><br>August 2018 – August 2019<br>(Currently on Study-leave) |
| <ul style="list-style-type: none"> <li>• <b>Primeasia University</b><br/>Lecturer, Dept. of Computer Science and Engineering (CSE)<br/><b>Course Conducted:</b> Software Engineering, Data Structures</li> </ul>   | <b>Dhaka, Bangladesh</b><br>June 2018 – July 2018                                   |
| <ul style="list-style-type: none"> <li>• <b>Workshop on “Outcome Based Education” (OBE)</b><br/>United International University (UIU)</li> </ul>   | <b>Dhaka, Bangladesh</b><br>August 2018   |
| <ul style="list-style-type: none"> <li>• <b>Short Course on Cisco Certified Network Associate (CCNA)</b><br/>Military Institute of Science and Technology (MIST)</li> </ul>  | <b>Dhaka, Bangladesh</b><br>Duration: 42 Hours                                      |
| <ul style="list-style-type: none"> <li>• <b>Global Voice Telecom Limited</b><br/>Industrial Training on VoIP technology</li> </ul>   | <b>Dhaka, Bangladesh</b><br>Dec 2016 – Jan 2017                                     |

## Leadership and Voluntary Experience

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- **Research Mentorship**
  - Mentoring a master’s and an undergraduate student at the University of Calgary to achieve research progress
  - Advising the mentees to generate novel research ideas
  - Assisting the mentees to write clean codes
  - Providing guidance to write research papers

- **Calgary Hacks 2022 – 20 February 2022**
  - Served as a judge
- **External Reviewer**
  - The 21st International Conference on Computational Science and Applications (ICCSA 2021)
  - Transactions on Computational Science – Springer
- **Organizer**
  - 21<sup>st</sup> International Conference on Computer and Information Technology (ICCIT - 2018)

## Online Courses and Certifications

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- **Introduction to TensorFlow for Artificial Intelligence, Machine Learning, And Deep Learning**
  - Issuing Organization: Coursera
  - Issue Date: April 20, 2020
  - Credential ID: [6EK8CMWjWPGE](#)
- **Python for Data Science and Machine Learning Bootcamp**
  - Issuing Organization: Udemy
  - Issue Date: April 17, 2020
  - Credential ID: [UC-685f6e72-e398-462d-9cdf-666adbd78b9b](#)

## Technical Proficiency (<https://github.com/anzumbivor>)

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- **Programming Language:** Python, C, C++, Java, HTML5, CSS, PHP, JavaScript, MySQL, Assembly
- **Platform/Library:** NumPy, Pandas, Matplotlib, Seaborn, Plotly, Scikit-Learn, TensorFlow, Keras, MATLAB, OpenGL, Android, Oracle 11g, Windows, Linux, GitHub, Cisco Packet Tracer, GNS3, MS Office, Latex

## Extra-Curricular Activities & Awards

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- **Champion** in International Telco Warfare (Net War) - 2017 organized by East West University
- **Runner-up** in IUT CSE Fest (App Development) - 2017 among 41 teams
- **Second Runner-up** in SUST CSE Carnival (Hackathon) - 2017 among 36 teams
- **Winner** in National Symposium on “Chemical Weapons Convention for the Peaceful Use of Chemistry” (Poster Competition) - 2017
- Participated in Project Showcasing in **IEEE IHTPC - 2017** organized by BUET