

Fahim Anzum

PhD Fellow, 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, Autonomous Driving, etc.*); Human-in-the-loop Computing; Human-Computer Interaction (HCI); Human-AI Interaction

Education

- Doctor of Philosophy: Computer Science** **Expected: Aug 2025**
 University of Calgary
Supervisor: Dr. Marina Gavrilova
Research Lab: Biometric Technologies Laboratory (BT Lab)
 Calgary, Canada
- Master of Science: Computer Science (CGPA: 4.00/4.00)** **Aug 2021**
 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>
 Calgary, Canada
- Bachelor of Science: Computer Science and Engineering (CGPA: 3.79/4.00)** **Jan 2018**
 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
 Dhaka, Bangladesh

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

- 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

- “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 **19th** in Dhaka Education Board, Bangladesh
- **“Junior School Scholarship (2008)”** on 8th grades, Dhaka, Bangladesh

Work Experience & Training

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

Volunteer Experience

- **External Reviewer**
 - The 21st International Conference on Computational Science and Applications (ICCSA 2021)
 - Transactions on Computational Science - Springer

Online Courses and Certifications

- **Introduction to TensorFlow for Artificial Intelligence, Machine Learning, And Deep Learning**
 - Issuing Organization: Coursera
 - Issue Date: April 20, 2020
 - Credential ID: [6EK8CMWIWPGE](#)
- **Python for Data Science and Machine Learning Bootcamp**
 - Issuing Organization: Udemy

- Issue Date: April 17, 2020

- Credential ID: [UC-685f6e72-e398-462d-9cdf-666adbd78b9b](https://github.com/anzumbivor)

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

- **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

- **Organizer** of 21st International Conference on Computer and Information Technology (**ICCIT - 2018**)
- **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