Fahim Anzum

PhD Fellow, Graduate Assistant - Research
Department of Computer Science
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GitHub: https://github.com/anzumbivor
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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**
  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=gziajGcAAAAJ&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
  - o Valued at CA$ 3,000/year
- **"Department Research Award"** (2020-21) at the University of Calgary
  - o *Valued at CA$ 11,000 (Have been awarded for Winter 2021)*
- "**Mitacs-Accelerate Graduate Research Internship**" (2019-2021) at the University of Calgary
  - o *Valued at CA$ 50,000 for 2 years*
- "**International Graduate Recruitment Award**" (2019) at the University of Calgary
  - o *Valued at CA$ 2,000 received on September 2019*
- "**Visa Differential Scholarship**" (2019) at the University of Calgary
  - o *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

- **University of Calgary**   **Calgary, AB, Canada**
  Graduate Assistant - Teaching   Spring 2020, Winter 2020
  Conducted Courses:
    - *CPSC–217 (Introduction to Computer Science for Multidisciplinary Studies-I)*
    - *CPSC-319 (Data Structures, Algorithms and Their Application)*
- **Suncor Energy**   **Calgary, AB, Canada**
  Research Intern   Sept 2019 – Present
- **United International University (UIU)**   **Dhaka, Bangladesh**
  Lecturer, Dept. of Computer Science and Engineering (CSE)   August 2018 – August 2019
  Course Conducted*: Computer Graphics*   (Currently on Study-leave)
- **Primeasia University**   **Dhaka, Bangladesh**
  Lecturer, Dept. of Computer Science and Engineering (CSE)   June 2018 – July 2018
  Course Conducted*: Software Engineering, Data Structures*
- **Workshop on "Outcome Based Education" (OBE)**   **Dhaka, Bangladesh**
  United International University (UIU)   August 2018
- **Short Course on Cisco Certified Network Associate (CCNA)**   **Dhaka, Bangladesh**
  Military Institute of Science and Technology (MIST)   Duration: 42 Hours
- **Global Voice Telecom Limited**   **Dhaka, Bangladesh**
  Industrial Training on VoIP technology   Dec 2016 – Jan 2017

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: 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)

- **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