

EDUCATION

- **The University of British Columbia (UBC)** Vancouver, Canada
Ph.D. Candidate at Mechanical Engineering; CGPA: 87%
Sep 2020 - Sep 2025
- **Bangladesh University of Engineering and Technology (BUET)** Dhaka, Bangladesh
M.Sc. & B.Sc. in Mechanical Engineering; CGPA: 3.92/4.00 (4th/180)
April 2012 - May 2019

EXPERIENCE

- **4-Year Doctoral Fellow (4YF)** Vancouver, Canada
The University of British Columbia
Sep 2021 - Sep 2024
 - Research Assistant on 'Dendrite Inhibition Strategy using Hetero-epitaxy in Thin Film Deposition Mechanics'
 - Teaching Assistant: Dept. of Mechanical Engineering & Dept. of Physics at UBC
- **Assistant Professor of Teaching** Dhaka, Bangladesh
Bangladesh University of Engineering and Technology
Dec 2019 - Oct 2021
 - Instruction and Curriculum Development: Worked as instructor and designer for undergraduate mechanical engineering courses
 - Testing, Certification, and Consultant: Worked as a consulting engineer for testing and certification of breakpads, internal combustion engines, structural integrity of automobiles, emission analysis, and fuel properties
- **Lecturer** Dhaka, Bangladesh
Bangladesh University of Engineering and Technology
Apr 2017 - Dec 2019
 - Instruction and Curriculum Development: Worked as instructor and designer for undergraduate mechanical engineering courses and laboratory practices.

RESEARCH PROJECTS

- **Open-source Software Development:** Surftrack, MOOSEAnalyze, AtomProNet
- **Machine Learning Research:** Interatomic potential development at UBC-Vancouver
- **Battery Research:** Multi-scale modeling, Battery & Cleanroom testing at UBC-Vancouver and UBC-Okanagan

TECHNICAL SKILLS

- **Computational:** Python, MATLAB, Bash, PyTorch, VASP, LAMMPS, ABAQUS, MOOSE
- **Experimental:** Battery assembly, Cyclic testing, In-situ optical microscopy, Profilometer

GRANTS & FUNDINGS

- **DRI EDIA Champions** - Funding Agency: Digital Research Alliance of Canada [Amount: 35,000 CAD]
- **4-Year Doctoral Fellowship** - Funding Agency: The University of British Columbia [Amount: 93,267 CAD]

HONORS & AWARDS

- **1st prize** - Ideas With Impact Competition by ICICS & HATCH at UBC [May 2024]
- **Best Presentation Award** - CSME Congress in Computational Mechanics at University of Toronto [May 2024]
- **Dean's List** - 4 consecutive years in BUET [Feb 2013 - Feb 2017]
- **University Merit List** - 4 consecutive years in BUET [Feb 2013 - Feb 2017]

PUBLICATIONS AND CONFERENCES

- 4 first author; 8 co-author; 1 book chapter; 2 first author manuscript under review (refereed) (Link)

LEADERSHIP EXPERIENCE

- Steward, UBC Teaching Assistants' & Instructors Union (CUPE 2278) [2024-2025]
- Vice President (Academic), Mechanical Engineering Graduate Association, UBC [2022-2023]
- Award Leader, The Duke of Edinburgh's Award Foundation Bangladesh [2017-2021]