Dr. Wali Mohammad Abdullah

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PROFESSIONAL SUMMARY

Assistant Professor and AI researcher with 15+ years in academia and industry (Huawei). Passionate about advancing software engineering with Foundation Models and LLMs. Proven leadership in research, teaching, and grant-winning mentorship. Seeking to contribute to cutting-edge AI-integrated software systems and inspire future innovators.

EXPERIENCE

- **Assistant Professor**, Concordia University of Edmonton   *Aug 2024 – Present*

  - Program Coordinator, Department of Information Technology (September 2025 - August 2026
  - Member, Research & Faculty Development Committee (September 2025 - August 2026
  - Lead research initiatives in Foundation Models and Machine Learning applications within software engineering (FM4SE).
  - Supervised 3 graduate and 6 Undergraduate students.
  - Mentorship resulted in a Best Poster Award at CARIC 2025.
  - Delivered courses in Fall24, Winter25, and Fall25: IT Seminar, Networking, Advanced Networking, Modern Database Systems & Applications, and Algorithms.
  - Organized and presented research talks in IT seminars, fostering academic discourse.
  - Participated in departmental outreach, representing the IT department during the Fall 2024 Open House.
  - Served on selection committees for Alberta Innovates Graduate Student Scholarships (Fall 2024) and NSERC CGS M (Winter 2025).
  - Judged oral presentations at CARIC 2025, contributing to academic excellence.

- **Researcher - Software Engineering**, Huawei Technologies Canada   *Oct 2022 – Jul 2024*

  - Contributed to LLM and automated load test generation projects.
  - Worked on Software 4.0 research initiatives, influencing AI-forward design.
  - Enhanced software performance through advanced concurrency model implementation.

- **Lecturer**, University of Lethbridge   *Sep 2022 – Dec 2022*

  - Taught CPSC1820 - Discrete Structures.

- **Intern**, Mitacs Accelerate Program, Lab2Market Manitoba   *Mar 2022 – Jul 2022*

  - Participated in commercialization training.
  - Validated product-market fit of academic innovations.

- **Teaching Assistant**, University of Lethbridge   *Sep 2017 – Jul 2022*

  - Assisted and evaluated courses in C/C++, Data Structures, Networking, and Intro to CS.

- **Lecturer**, Military Institute of Science and Technology   *Jun 2011 – Aug 2017*

  - Taught C/C++, AI, Discrete Math, and Software Engineering.
  - Supervised undergraduate projects and developed CS curriculum.

- **Visiting Lecturer**

  - **Bangladesh University of Professionals**   *Jan 2017 – Jul 2017*
    Taught Introduction to Computers and Programming.

- **Bangladesh University of Business & Technology** *May 2016 – Apr 2017*
  Taught Compiler Design and C/C++.
- **Ahsanullah University of Science & Technology** *Jan 2014 – Jun 2014*
  Taught Digital Electronics and Pulse Techniques.

EDUCATION

- **Ph.D. in Theoretical and Computational Science**, University of Lethbridge, Canada *Sep 2017 – Jul 2022*

  – Research Focus: Optimization Algorithms, High-Performance Computing, Big-data Analytics

- **M.Sc. in Information and Communication Technology**, Bangladesh University of Engineering and Technology (BUET), Bangladesh *Apr 2011 – Oct 2014*

  – Research Focus: Metaheuristic Algorithms

- **B.Sc. in Computer Science and Engineering**, Military Institute of Science and Technology (MIST), Bangladesh *Jan 2007 – Jan 2011*

  – Research Focus: Bioinformatics Algorithms

TECHNICAL SKILLS

- **Languages:** C, C++, Python, Java

- **Frameworks & Libraries:** PyTorch, TensorFlow, CUDA, OpenMP, OpenCilk

- **Tools & Platforms:** Git, Postman, Neo4J, Cloud Services

- **Competencies:** LLMs, Software Optimization, HPC, Data Structures

RESEARCH EXPERIENCE

- Specialized in optimization algorithms, parallel computing, AI, and large-scale foundation models.

- Published 25+ papers in peer-reviewed journals and conferences.

- Contributed to industry research with a paper at FSE 2024 (industry track).

- Active research in Foundation Models and Advanced ML at Concordia University of Edmonton.

- Google Scholar: 130+ citations. scholar.google.ca/citations?user=F7a3z4sAAAAJ

ACHIEVEMENTS & AWARDS

- CUE SEED Grant, Concordia University of Edmonton *2025–2026*
- Alberta Innovates – Technology Futures (AITF) Graduate Scholarship *2018–2021*
- SGS Fellowship, Graduate Research and Tuition Awards, U of Lethbridge *2017–2022*
- GSA Travel Award, U of Lethbridge *2022*
- SGS Travel Award, U of Lethbridge *2021*
- Participated in the PIMS Math^{Industry} Workshop *2020*
- Volunteered in "Meeting of the Minds Conference-2018" at U of Lethbridge
- IEEE EMBS Bangladesh Best Paper Award (MediTec 2016) *2016*
- MIST Research Grant (Malaysia) *2015*
- Coached undergraduate students of MIST to participate in ACM-ICPC Regional Contest *2015-2017*

- Joint Secretary, Organizing Committee, 18th ICCIT, Dhaka, Bangladesh   2015

- Mentored and trained government officials of BEPZA, Bangladesh on basic computer skills

- MIST Merit Scholarships   *2008–2010*