

CURRICULUM VITAE BENJAMIN DAVID FEDORUK

Oshawa, ON, Canada

(365) 363-7000

benjamin.fedoruk@ontariotechu.ca

www.bfedoruk.com

RESEARCH INTERESTS

I am passionate about mathematics and its education. Mathematically, I am interested in group theory and algebraic number theory. Educationally, I am interested in inquiry-based learning (IBL) and the use of AI in education. Through my experience with undergraduate research, I've observed how novel mathematical insights often emerge when students engage with mathematics in innovative ways, reinforcing my belief in the deep connection between mathematical discovery and effective andragogy.

EDUCATION

2024 – 2025	Master of Education (In Progress) Ontario Tech University
2020 – 2024	Bachelor of Science (Honours) , Applied and Industrial Mathematics With Highest Distinction Ontario Tech University
2016 – 2020	International Baccalaureate Certificate Program Superior Collegiate and Vocational Institute

PUBLICATIONS

- (2) Diyab, A., Frost, R. M., **Fedoruk, B. D.**, Diyab, A. (2025). Engineered prompts in ChatGPT for educational assessment in software engineering and computer science. *MDPI Education Sciences*, 15(2), Article 156. <https://doi.org/10.3390/educsci15020156>
- (1) **Fedoruk, B. D.**, Nelson, H. S. R., Frost, R. M., & Fucile Ladouceur, K. A. (2021). The Plebeian Algorithm: A democratic approach to censorship and moderation. *JMIR Formative Research*, 5(12), Article e32427. <https://doi.org/10.2196/32427>

CONFERENCES

- (1) **Fedoruk, B. D.**, Showler, A. M., Shah, N. S., Tsai, P. J. (2022, August 8-9). Darwinian MAVs: The biomimicry of a hybridization of small birds' flight patterns in the UAV context [Poster presentation]. 30th Annual Conference of the Computational Fluid Dynamics Society of Canada, Toronto, ON, Canada. <https://doi.org/10.54985/peeref.2411p6084991>

BLOG POSTS

- (1) **Fedoruk BD.** Natural philosophy in the ancient and early modern worlds. SciComm Blog, STEM Fellowship. 2022 Mar 25.

TEACHING

Teaching Assistantships

MATH3070	Algebraic Structures (Winter 2025)
MATH2055	Advanced Linear Algebra, Ontario Tech University (Winter 2025)
MATH2050	Linear Algebra, Ontario Tech University (Winter 2025)
IMCS3010	Integrated Application Project, Ontario Tech University (Fall 2024)
MATH3020	Real Analysis, Ontario Tech University (Fall 2024)
MATH2080/CSCI2110	Discrete Mathematics, Ontario Tech University (Fall 2024)
MATH1850	Linear Algebra for Engineers, Ontario Tech University (Spring 2024)
MATH2055	Advanced Linear Algebra, Ontario Tech University (Winter 2024)
MATH2050	Linear Algebra, Ontario Tech University (Winter 2024)
MATH1850	Linear Algebra for Engineers, Ontario Tech University (Fall 2023)
MATH1010	Calculus I, Ontario Tech University (Winter 2023)
MATH1000	Introductory Calculus, Ontario Tech University (Fall 2022)

RESEARCH

05/2022 – 10/2022	Research under Supervision of Dr. Jane Breen (Evolutionary Graph Theory and Infodemiology) funded by NSERC USRA
-------------------	---

SERVICE ACTIVITIES

01/2022 – 08/2022	Copy Editor STEM Fellowship Journal
01/2023 – present	Reviewer Journal for Medical Internet Research (JMIR)

OTHER POSITIONS

05/2023 – 10/2023	Content Development Assistant Ontario Tech University
02/2022 – 08/2022	Event Coordinator STEM Fellowship (Data Science Committee)
08/2021 – 02/2022	Program Management Team Lead STEM Fellowship (Data Science Committee)
08/2022 – 09/2022	Scholarly Viewpoint Challenge Mentor STEM Fellowship (Scientific Communication Committee)
01/2021 – 08/2022	Co-Founder and President Northern Shores Innovation Institute
10/2021 – 01/2022	Data Analyst AutoGuardian by SmartCone

01/2017 – 06/2019

Vice President

Regional Multicultural Youth Council

WORKSHOPS HOSTED

06/2023	Combinatorial logic and the sage bird (50 attendees)
04/2023	APLify Your Data Science: Unlocking the Power of APL for Efficient and Expressive Analysis and Visualization (30 attendees)
11/2021	Fighting for the Truth: Using the Plebeian Algorithm to Combat Social Media Misinformation (30 attendees)
10/2021	A Democratic World Wide Web: An Introduction and Implementation of the Plebeian Algorithm to Freely Combat Misinformation (1600 attendees)

CERTIFICATIONS

2023	Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2: CORE 2022)
------	---

HONOURS AND AWARDS

2024	Graduated with Highest Distinction, Ontario Tech University
2023	Johnson Inc. Scholarship
2022	NSERC Undergraduate Student Research Award
2022	M2C2 ICUBE Third Place Award
2022	Accessible Mobility: Towards a Zero-Barrier Mobility Challenge Third Place
2021	Brilliant Catalyst Challenge for Rural Canada Winner
2021	JMIR Infodemic Innovation Award
2021	#Challenge4ClimateAction: Datathon Stream Second Place
2020	Ontario Scholar
2020	Kiwanis Club of Westfort Scholarship

This curriculum vitae is true and accurate as of 28 January 2025.