

Lazar Atanackovic

Postdoctoral Fellow · Incoming Assistant Professor · Incoming Amii Research Fellow

University of Alberta & Amii [↗](#)
The Broad Institute of MIT-Harvard [↗](#)
at The Eric & Wendy Schmidt Center [↗](#)

Homepage [↗](#) / Google Scholar [↗](#) / Github [↗](#)
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Academic Positions

Assistant Professor , University of Alberta (UofA) Department of Electrical & Computer Engineering Department of Biochemistry	2026 -
Research Fellow , Alberta Machine Intelligence Institute (Amii)	2026 -
Postdoctoral Associate , Broad Institute of MIT & Harvard The Eric & Wendy Schmidt Center	2025 - 2026

Education

University of Toronto (UofT), Toronto, ON Ph.D. , Electrical & Computer Engineering Supervisors: <i>Brendan Frey, Bo Wang</i>	2020 - 2025
University of British Columbia (UBC), Vancouver, BC M.A.Sc. , Electrical & Computer Engineering, Supervisor: <i>Lutz Lampe</i> B.A.Sc. , Electrical Engineering, <i>with Distinction</i>	2018 - 2020 2014 - 2018

Grants & Fellowships

Eric & Wendy Schmidt Postdoctoral Fellowship	2025 -
NSERC Postdoctoral Fellowship	2025 -
Ontario Graduate Scholarship (UofT)	2024
Vector Institute Student Research Grant (UofT)	2020 - 2025
Edward S. Rogers Sr. Graduate Scholarship (UofT)	2020 - 2024
School of Graduate Studies Conference Grant (UofT) (<i>respectfully declined</i>)	Fall 2023, Winter 2023
NSERC Canadian Graduate Scholarship – Doctoral (UofT)	2022-2023
NSERC Post Graduate Scholarship – Doctoral (UofT)	2020-2022
Graduate Support Initiative (UBC)	2018 & 2019
British Columbia Graduate Scholarship (UBC)	2019
NSERC Canadian Graduate Scholarship - Masters (UBC)	2018
NSERC Undergraduate Student Research Award (UBC)	2017

Honours & Awards

Doctoral Completion Award	2025
NeurIPS Top Reviewer ↗	2024

Best Student Paper Award ISPLC	2018
UBC Electrical & Computer Engineering Capstone Industry Award (final year project)	2018
Charles Lindsay Thompson Scholarship	2018
Captain C.Y. Wu Scholarship	2018
B.A.Sc. Dean's Honour List (UBC)	2016, 2017, 2018
Port Coquitlam Minor Hockey Scholarship	2014


Research Positions

Vector Institute , Toronto, ON <i>Graduate Student Researcher</i>	2020 - 2025
University Health Network , Toronto, ON <i>Research Trainee</i> , Peter Munk Cardiac Center Artificial Intelligence	2024 - 2025
King's College London , London, UK <i>Visiting Student Researcher</i> , Faculty of Life Sciences and Medicine	Jun 2024
Mila - The Quebec AI Institute / University of Montreal , Montreal, QC <i>Research Intern</i> , Dept. of Computer Science & Operations Research	May 2022 - Aug 2022
University of Haifa , Haifa, Israel <i>Visiting Student Researcher</i> , Acoustic and Navigation Lab	May 2019
University of British Columbia , Vancouver, BC <i>Undergraduate Research Assistant</i> , Dept. of Electrical & Computer Engineering	May 2017 - Aug 2017


Industry

Deep Genomics , Toronto, ON <i>Machine Learning Intern</i>	Nov 2024 - Feb 2025
Valence Labs / Recursion Pharmaceuticals , Montreal, QC <i>Machine Learning Research Intern</i>	Sep 2023 - Feb 2024

Pre-prints

- [1] Morhead A., **Atanackovic L.**, Hedge A., Wang y., Boadu F., Selvaraj J., Tong A., Kirshnapriyan A., Cheng J., *How to go with the flow: flow matching in bioinformatics and computational biology*, [submitted to] Nature Machine Intelligence (NMI), 2025 
- [2] Rimawi-Fine N.E.*, Stecklov A.*, Nelson L.*, Tong A., Blanchette M., Zhang S.Y., **Atanackovic L.**, *Simulation-Free Structure Learning For Stochastic Dynamics*, [in Review] International Conference on Learning Representations (ICLR), 2026

Peer-reviewed Conference & Journal Publications

- [1] Petrović K., **Atanackovic L.**, Moro V., Kapusniak K., Ceylan, I.I., Bronstein M.M., Bose J., Tong A., *Curly Flow Matching for Learning Non-gradient Field Dynamics*, Advances in Neural Information Processing Systems (NeurIPS), 2025
- [2] Skreta M.*, **Atanackovic L.***, Bose J., Tong A., Neklyudov K., *The Superposition of Diffusion Models Using the Itô Density Estimator*, International Conference on Learning Representations (ICLR), 2025 [**Spotlight**] 

- [3] **Atanackovic L.***, Zhang X.*, Amos B., Blanchette M., Lee L., Bengio Y., Tong A., Neklyudov K., *Meta Flow Matching: Integrating Vector Fields on the Wasserstein Manifold*, International Conference on Learning Representations (ICLR), 2025 [↗](#)
- [4] **Atanackovic L.**, Bengio E., *Investigating Generalization Behaviours of Generative Flow Networks*, Transactions on Machine Learning Research (TMLR), 2025 [↗](#)
- [5] Neklyudov K.*, Brekelmans R.*, Tong A., **Atanackovic L.**, Liu Q., Makhzani A., *A Computational Framework for Solving Wasserstein Lagrangian Flows*, International Conference on Machine Learning (ICML), 2024 [↗](#)
- [6] Tong A.*, Malkin N.*, Fatras K.*, **Atanackovic L.**, Zhang Y., Huguët G., Wolf G., Bengio Y., *Simulation-Free Schrödinger Bridges via Score and Flow Matching*, Artificial Intelligence and Statistics (AISTATS), 2024 [↗](#)
- [7] **Atanackovic L.***, Tong A.*, Wang B., Lee L. J., Bengio Y., Hartford J., *DynGFN: Towards Bayesian Inference of Gene Regulatory Networks with GFlowNets*, Advances in Neural Information Processing Systems (NeurIPS), 2023 [↗](#)
- [8] Liu T., Fradkin P., **Atanackovic L.**, Lee L. J., *Energy-based Modelling For Single-cell Data Annotation*, Machine Learning in Computational Biology (MLCB), 2022 [↗](#)
- [9] Fradkin P., Young A., **Atanackovic L.**, Lee L. J., Frey B., Wang B., *A Graph Neural Network Approach to Molecule Carcinogenicity Prediction*, Bioinformatics, vol. 38, pp. i84-i91, 2022 – presented at ISMB [↗](#)
- [10] **Atanackovic L.**, Lampe L., Diamant R., *Deep-learning Based Ship-radiated Noise Suppression for Underwater Acoustic OFDM Systems*, IEEE/MTS OCEANS, 2020 [↗](#)
- [11] **Atanackovic L.**, Vakilian V.*, Wiebe D.*, Lampe L., Diamant R., *Stochastic Ship-radiated Noise Modelling via Generative Adversarial Networks*, IEEE/MTS OCEANS, 2020 [↗](#)
- [12] **Atanackovic L.**, *Machine Learning Inspired Ship-radiated Noise Modelling And Cancellation for Underwater Acoustic Communication Systems*, Masters Thesis, UBC, 2020 [↗](#)
- [13] **Atanackovic L.**, Zhang R., Lampe L., Diamant R., *Statistical Shipping Noise Characterization and Mitigation for Underwater Acoustic Communications*, IEEE/MTS OCEANS, 2019 [↗](#)
- [14] Huo Y., Prasad G., **Atanackovic L.**, Lampe L., Leung V. C. M., *Cable Diagnostics with Power Line Modems for Smart Grid Monitoring*, IEEE Access, vol. 7, pp. 60206-60220 2019 [↗](#)
- [15] Huo Y., Prasad G., **Atanackovic L.**, Lampe L., Leung V. C. M. *Grid Surveillance and Diagnostics Using Powerline Communications*, International Symposium on Power Line Communications (ISPLC), 2018 (**Best Student Paper Award**) [↗](#)

Workshop Posters & Presentations

- [1] Rimawi-Fine N.E.*, Stecklov A.*, Nelson L.*, Tong A., Blanchette M., Zhang S.Y., **Atanackovic L.**, *Simulation-Free Structure Learning For Stochastic Dynamics*, Machine Learning in Computational Biology, 2025 [**Oral**]
- [2] Rimawi-Fine N.E.*, Stecklov A.*, Nelson L.*, Tong A., Blanchette M., Zhang S.Y., **Atanackovic L.**, *Simulation-Free Structure Learning For Stochastic Dynamics*, ICLR Workshop on Learning Meaningful Representations of Life (LMLR), 2025
- [3] Petrović K., **Atanackovic L.**, Kapusniak K., Bronstein M.M., Bose J., Tong A., *Curly Flow Matching for Learning Non-gradient Field Dynamics*, ICLR Workshop on Learning Meaningful Representations of Life (LMLR), 2025
- [4] **Atanackovic L.**, Bengio E., *Investigating Generalization Behaviours of Generative Flow Networks*, ICML Workshop on Structured Probabilistic Inference and Generative Modeling (SPIGM), 2024 [**Oral**]
- [5] **Atanackovic L.***, Zhang X.*, Amos B., Blanchette M., Lee L., Bengio Y., Tong A.**, Neklyudov K.**, *Meta Flow Matching: Integrating Vector Fields on the Wasserstein Manifold*, ICML Workshop on Geometry-grounded Representation Learning and Generative Modeling (GRaM), 2024
- [6] Neklyudov K., Brekelmans R., Tong A., **Atanackovic L.**, Liu Q., Makhzani A., *A Computational Framework for Solving Wasserstein Lagrangian Flows*, NeurIPS Workshop on Optimal Transport and Machine Learning, 2023

- [7] Tong A., Malkin N., Fatras K., **Atanackovic L.**, Zhang Y., Huguet G., Wolf G., Bengio Y., *Simulation-Free Schrodinger Bridges via Score and Flow Matching*, ICML Workshop on Frontiers in Learning, Control, and Dynamical Systems, 2023
- [8] Tong A.*, **Atanackovic L.***, Hartford J., Bengio Y., *Bayesian Dynamic Causal Discovery*, NeurIPS Workshop on Causal Dynamic Systems, 2022 [↗](#)
- [9] Liu T., Fradkin P., **Atanackovic L.**, Lee L. J., *Energy-based Modelling For Single-cell Data Annotation*, NeurIPS Workshop on Learning Meaningful Representations for Life (LMRL), 2022
- [10] Fradkin P.*, **Atanackovic L.***, Zhang M. R.*, *Robustness to Adversarial Gradients: A Glimpse into the Loss Landscape of Contrastive Pre-training*, ICML Workshop on Pre-training, 2022 [↗](#)
- [11] Fradkin P., Young A., **Atanackovic L.**, Lee L. J., Frey B., Wang B., *A Graph Neural Network Approach to Molecule Carcinogenicity Prediction*, Machine Learning in Computational Biology (MLCB) & NeurIPS Workshop on Learning Meaningful Representations for Life (LMRL), 2021

Presentations

Invited Talks

- “Dynamics-based Generative Models for the Inference, Response Prediction, and Control of Biological Systems”. Separating the Signal from the Noise: AI in Biology. San Francisco, CA. (June 2025)
- “Dynamics-based Generative Models for the Inference, Response Prediction, and Control of Biological Systems”. Upper Bound AI Conference. Edmonton, AB. (May 2025)
- “Meta Flow Matching: Integrating Vector Fields on the Wasserstein Manifold”. Learning on Graphs and Geometry (LoGG). Virtual. (October 2024) [↗](#)
- “DynGFN: Towards Bayesian Inference of Gene Regulatory Networks with GFlowNets”. Helmholtz AI Conference 2024. Dusseldorf, Germany. (June 2024)

Contributed Talks

- “Deep-learning Based Ship-radiated Noise Suppression for Underwater Acoustic OFDM Systems”. IEEE/MTS OCEANS Global US-Singapore [*virtual*]. (October 2020)
- “Stochastic Ship-radiated Noise Modelling via Generative Adversarial Networks” IEEE/MTS OCEANS Global US-Singapore [*virtual*]. (October 2020)
- “Statistical Shipping Noise Characterization and Mitigation for Underwater Acoustic Communications”, IEEE/MTS OCEANS Marseille. (June 2019)
- “Sparsity-based Shipping Noise Analysis and Cancellation in Underwater Acoustic Communication”, Acoustical Society of America. (November 2018). (**Presenter: Atanackovic L. on behalf of Lampe L.**)

Teaching

University of Toronto, Toronto, ON

<i>Teaching Assistant</i> , ECE 244 - Programming Fundamentals,	2022
<i>Teaching Assistant</i> , ECE 421 - Introduction to Machine Learning	2022

University of British Columbia, Vancouver, BC

<i>Teaching Assistant</i> , ELEC 311 - Electromagnetic Fields and Waves	2020
<i>Teaching Assistant</i> , ELEC 221 - Signals and Systems	2019
<i>Teaching Assistant</i> , CPEN 211 - Introduction to Microcomputers	2018, 2019
<i>Undergraduate Teaching Assistant</i> , CPEN 211 - Introduction to Microcomputers	2016, 2017

Supervision


<i>Undergraduate Thesis Supervisor</i>	(UofT)
Student now Software engineer at Ramp.	2021 - 2022
Co-supervised an undergraduate honours thesis student under Brendan Frey.	
Resulted in completion of honours undergraduate thesis.	
<i>Undergraduate Research Supervisor</i>	(UBC)
Student now Applied Scientist at Apera AI.	2020
Co-supervised undergraduate research experience program under Lutz Lampe.	
Resulted in IEEE/MTS OCEANS co-authorship.	
<i>Undergraduate Research Supervisor</i>	(UBC)
Student now Graduate Student at UBC.	2020
Co-supervised undergraduate research experience program under Lutz Lampe.	
Resulted in IEEE/MTS OCEANS co-authorship.	
<i>Undergraduate Thesis Supervisor</i>	(UBC)
Co-supervised an undergraduate honours thesis student under Lutz Lampe.	2019
Resulted in completion of honours undergraduate thesis.	

Service

Reviewer

NeurIPS (2024 *Top Reviewer*, 2025)
 ICLR (2025, 2026)
 TMLR (2025)
 ICML (2025)
 AISTATS (2025)
 MLCB (2023)
 NeurIPS LMRL Workshop (2022)
 NeurIPS Meta-learning Workshop (2022)
 ICML Pre-training Workshop (2022)
 IEEE Communications Letters (2020)

Volunteering

<i>Mentor</i> , Graduate Application Assistance Program (GAAP), Dep. of Computer Science (UofT) 	2023 - 2024
<i>Youth Mentor</i> , High school research involvement program, ECE, (UBC)	2019

Professional Affiliations

Engineers and Geo-scientists of British Columbia (EGBC), *Student Member*, 2016 - 2020
Institute of Electrical and Electronics Engineers (IEEE), *Student Member*, 2017 - 2020
Society of Automotive Engineers (SAE), *Student Member*, 2016 - 2018