

Konstantinos Christopher Tsiolis

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PROFILE

I am a Master's student pursuing a career in machine learning research. My current research interests include deep learning theory, out-of-distribution generalization, and self-supervised representation learning.

EDUCATION

McGill University

Master of Science (M.Sc.) in Mathematics and Statistics

Montreal, QC

Jan. 2022 –

- Supervisor: Adam Oberman
- Thesis topic (tentative): Representation learning and distillation with similarity-based losses

McGill University

Bachelor of Science (B.Sc.) in Honours Mathematics and Computer Science

Montreal, QC

Sep. 2018 – Dec. 2021

- Cumulative GPA: 3.99/4.0
- Machine learning coursework: COMP 550 - Natural Language Processing, COMP 551 - Applied Machine Learning, COMP 599 / MATH 597 - Statistical Learning Theory

RESEARCH AND WORK EXPERIENCE

Undergraduate Course Assistant

McGill University Department of Computer Science

Aug. 2021 - Dec. 2021

Montreal, QC

- Course: COMP 251 - Algorithms and Data Structures
- Instructors: Jérôme Waldispühl and Roman Sarrazin-Gendron
- Responsibilities: Creating assignments with other TAs, creating problem sets, holding office hours, grading exams

Undergraduate Research Assistant

Mila / McGill University Department of Mathematics and Statistics

Summer 2021

Montreal, QC

- Supervisor: Adam Oberman
- Developing, implementing, and testing novel approaches in knowledge distillation and self-supervised representation learning for computer vision
- Implemented a pipeline in PyTorch to run, test, and log experimental results of our approaches

Undergraduate Research Assistant

Mila / McGill Reasoning and Learning Lab

Summer 2019 and 2020

Montreal, QC

- Supervisor: Jackie Chi Kit Cheung
- Natural language processing research on word embeddings and computational pragmatics
- Working with other students to build, evaluate, and analyze our method for combining word embeddings from different domains and algorithms, achieving high performance on several NLP benchmarks
- Conducting a detailed literature review and keeping notes on related work
- Writing research proposals and summaries
- Presenting my work at reading groups and conferences

PUBLICATIONS

Jingyi He, KC Tsiolis, Kian Kenyon-Dean, and Jackie Chi Kit Cheung. 2020. Learning Efficient Task-Specific Meta-Embeddings with Word Prisms. *Proceedings of the 28th International Conference on Computational Linguistics*, pages 1229-1241.

SKILLS

Languages: English (fluent), French (fluent), Greek (intermediate)

Programming Languages: Python (4 years), Java (7 years), Bash (3 years), C (3 years), MATLAB (3 years), JavaScript (3 years), OCaml (1 year)

Libraries: PyTorch, Tensorflow, NumPy, scikit-learn, pandas, Matplotlib

Experience working in a Unix/Linux environment

PROJECTS AND EXTRACURRICULAR ACTIVITIES

- Academic Lecturer at the McGill Artificial Intelligence Society** Mar 2020 – Apr 2021
- Giving lectures and writing a textbook for a student-run machine learning course
 - Processing applications and conducting interviews
 - Holding office hours and one-on-one meetings with students
- MathBuddy** Nov. 2017 – May 2018
- Pitch for an “AI math tutor” that can recognize handwritten solutions and identify mistakes
 - Project pitch won 1st place at Vanier College’s LaunchBox innovation competition
- Hackathons**
- 1st place at hack_mcwics (2020), 4th place at the McGill Physics Hackathon (2017)
 - Participant at MariHacks (2018), Hackathon UdeM (2018), ConcordAI (2019), ImplementAI (2019)

AWARDS

- Wing Hing Chan Scholarship in Science** Aug. 2021
- Awarded to an outstanding McGill student in the Faculty of Science
- Alan Shaver Scholarship** Aug. 2021
- Awarded to an outstanding McGill student in the Faculty of Science
- IVADO Undergraduate Introduction to Research Scholarship** May 2021 – Aug. 2021
- Funding awarded to undergraduate students pursuing summer research in data science
- Anne Molson Scholarship** Aug. 2020
- Awarded to a McGill student in the Physical Sciences prior to their final year
- Emily Ross Crawford Scholarhsip** Aug. 2020
- Awarded to a McGill student in the Faculty of Science based on academic achievement in the first two years
- NSERC Undergraduate Student Research Award** May 2020 – Aug. 2020
- Funding awarded to undergraduate students pursuing summer research in natural sciences or engineering
- John Mahon Scholarship** Aug. 2018 – Dec. 2021
- Annually renewable entrance scholarship at McGill University