Konstantinos Christopher Tsiolis

kc.tsiolis@mail.mcgill.ca | linkedin.com/in/kctsiolis | https://kctsiolis.github.io | https://github.com/kctsiolis

PROFILE

I am a Master's student pursuing a career in machine learning research. My current research interests include self-supervised learning, deep learning theory, OOD generalization, and causal inference.

EDUCATION

McGill University — Montreal, QC
Master of Science (M.Sc.) in Mathematics and Statistics — *Jan. 2022 – Present*
- Supervisor: Adam Oberman
- Cumulative GPA: 4.0/4.0
- Research topics: Self-supervised learning, data augmentation, knowledge distillation, random matrix theory, identifiability, causal inference

McGill University — Montreal, QC
Bachelor of Science (B.Sc.) in Honours Mathematics and Computer Science — *Sep. 2018 – Dec. 2021*
- Cumulative GPA: 3.99/4.0

RESEARCH EXPERIENCE

Undergraduate Research Assistant — Summer 2021
Mila / McGill University Department of Mathematics and Statistics — *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 — Summer 2019 and 2020
Mila / McGill Reasoning and Learning Lab — *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 (* DENOTES EQUAL CONTRIBUTION)

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 Lingusitics*, pages 1229-1241.

TEACHING

Fall 2022: Teaching Assistant for MATH 222 (Caluclus 3) at McGill University
Fall 2021: Course Assistant for COMP 251 (Algorithms and Data Structures) at McGill University

SKILLS

Languages: English (fluent), French (fluent), Greek (intermediate)
Programming Languages: Python, Java, Bash, C, MATLAB, JavaScript, OCaml
Libraries: PyTorch, Tensorflow, NumPy, scikit-learn, pandas, Matplotlib
Experience with Unix/Linux

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

FRQNT Master's (B1X) Research Scholarship Jun. 2022
- Awarded to outstanding research M.Sc. students in Quebec
- Awarded in 2022, but funding deferred to 2023 due to NSERC award

NSERC Canada Graduate Scholarships - Master's Program May 2022 – Apr. 2023
- Awarded to outstanding research M.Sc. students in Canada

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