

John Giorgi

PH.D CANDIDATE · COMPUTER SCIENCE

Toronto

✉ johnmgiorgi@gmail.com | 🏠 johngiorgi.github.io | 📱 johngiorgi | 🎓 John Giorgi

Education

University of Toronto

Toronto, Canada

PH.D COMPUTER SCIENCE CANDIDATE

May. '19 - Sept. '23 (est.)

- Supervised by **Dr. Gary Bader** and **Dr. Bo Wang**
- Graduate student at the **Donnelly Centre for Cellular and Biomolecular Research** and the **Vector Institute**
- Focusing on **natural language processing (NLP)**, and in particular its application to biomedical literature
- **Teaching Assistant (TA)** for C4M: **Computing for Medicine** (Fall '19 – Winter '20)
- **TA** for CSC108: **Introduction to Computer Programming** (Fall '20 – Winter '21, Fall '21 & Fall '22)
- **TA** for CSC148: **Introduction to Computer Science** (Summer '21)
- **Head TA** for CSC413: **Neural Networks and Deep Learning** (Winter '22)

University of Toronto

Toronto, Canada

M.SC COMPUTER SCIENCE

Sept. '17 – May '19

- Supervised by Dr. Gary Bader.
- Completed a thesis on **information extraction from biomedical literature**, which was published in *Bioinformatics*
- **Teaching Assistant (TA)** for CSC108: **Introduction to Computer Programming** (Fall '17 – Winter '18)
- **TA** for C4M: **Computing for Medicine** (Fall '18)

University of Ottawa

Ottawa, Canada

B.SC. BIOCHEMISTRY (MAJOR), COMPUTER SCIENCE (MINOR)

Sept. '13 – Apr. '17

- Graduated with honours: *magna cum laude*, with a **specialization** in **immunology** and **microbiology**

Experience

Internship at Semantic Scholar (Ai2)

Seattle, Washington

FULL-TIME

May. '22 – Sept. '22

- Completed an internship on the **Semantic Scholar** team at the **Allen Institute for Artificial Intelligence (Ai2)**
- Conducted research on **open-domain multi-document summarization** by combining state-of-the-art **information retrieval (IR)** techniques with existing **multi-document summarizers**. This work is currently in submission.

Internship at Semantic Health

Toronto, Canada

FULL-TIME

July '20 – Sept. '20

- Completed a **Mitacs Accelerate internship** jointly sponsored by **Mitacs**, **Semantic Health**, and the **University of Toronto**
- Conducting research on strategies for **weak-supervision** to classify discharge summaries with their corresponding ICD codes
- Developed a pipeline capable of labelling discharge summaries for mentions of heart disease with 75% accuracy

Data Science Internship RWTH Aachen University

Aachen, Germany

FULL-TIME

May '16 – Aug. '16

- Completed a research project entitled: *“Exploring Innovations via Web Mining & Natural Language Processing — The Case of Wearable Technology and Health Tracking”* where we semi-automatically analyzed the discourse around wearable tech online
- Responsible for collecting, cleaning and analyzing text data using NLP techniques, like **document clustering** and **sentiment analysis**

Molecular Biology Internship at ENS Lyon

Lyon, France

FULL TIME

Apr. '15 – Aug. '15

- Awarded the **uOttawa SIRI scholarship** and the opportunity to participate in molecular genetics research at ENS Lyon, France.
- Assisted with the histological and molecular characterization of a knockout mouse model, including the analysis of diseased mutant mouse organs, using various **immunochemistry techniques**, **western blots**, **transcriptomic analysis** and **behavioural tests**.

Honors, Awards & Publications

GRANTS

2017 **Nvidia GPU Grant**, awarded a Titan Xp GPU from Nvidia's Accelerated Computing GPU Grant [Toronto, Canada](#)

SCHOLARSHIPS

'21 **Alexander Graham Bell Canada Graduate Scholarship (CGS D)**, merit-based federal scholarship awarded through a national competition [Toronto, Canada](#)

'19, '20 **Ontario Graduate Scholarship (OGS)**, merit-based scholarship awarded to Ontario's top graduate students [Toronto, Canada](#)

2015 **University of Ottawa and ENS Lyon Summer International Research Internship (SIRI) scholarship**, awarded based on sponsorship of a full time faculty member and academic merit [Ottawa, Canada](#)

2014 **University of Ottawa Undergraduate Research Opportunity (UROP) scholarship**, awarded based on sponsorship of a full time faculty member and academic merit [Ottawa, Canada](#)

2013 **University of Ottawa Entry scholarship**, awarded for an admission average of $\geq 94.9\%$ [Ottawa, Canada](#)

SELECT PUBLICATIONS

2022 **Exploring the Challenges of Open Domain Multi-Document Summarization**, Giorgi, John, et al. *arXiv* (2022)

2022 **A sequence-to-sequence approach for document-level relation extraction**, Giorgi, John, et al. *BioNLP@ACL* (2022) [Dublin, Ireland](#)

2021 **DeCLUTR: Deep Contrastive Learning for Unsupervised Textual Representations**, Giorgi, John, et al. *ACL-IJCNLP* (2021)

2019 **End-to-end Named Entity Recognition and Relation Extraction using Pre-trained Language Models**, Giorgi, John, et al. *arXiv* (2019)

2019 **Towards reliable named entity recognition in the biomedical domain**, Giorgi, John and Bader, Gary. *Bioinformatics* (2019)

2018 **Transfer learning for biomedical named entity recognition with neural networks**, Giorgi, John and Bader, Gary. *Bioinformatics* (2018)

2018 **High intraspecific genome diversity in the model arbuscular mycorrhizal symbiont *Rhizophagus irregularis***, Chen, Eric CH, et al. *New Phytologist* (2018)

LARGE COLLABORATIONS

2022 **BigBIO: A Framework for Data-Centric Biomedical Natural Language Processing**, Fries, Jason Alan et al. *NeurIPS Datasets and Benchmarks* (2022) [New Orleans, USA](#)

Relevant Course Work

UNIVERSITY OF TORONTO

2020 **CSC2516 Neural Networks and Deep Learning**, Achieved 'A+' Grade. [Toronto, Canada](#)

2018 **CSC2506 Probabilistic Learning and Reasoning**, Achieved 'A-' Grade. [Toronto, Canada](#)

2018 **CSC2511 Natural Language Computing**, Achieved 'A' Grade. [Toronto, Canada](#)

2017 **CSC2501 Computational Linguistics**, Achieved 'A' Grade. [Toronto, Canada](#)

2017 **CSC2515 Machine Learning and Data Mining**, Achieved 'A' Grade. [Toronto, Canada](#)