

NIVASINI ANANTHAKRISHNAN

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EDUCATION

University of California Berkeley

September 2021 - Present

Ph.D. in Computer Science

University of Waterloo

May 2021

M.Math. in Computer Science

Advisor : [Prof. Shai Ben-David](#)

University of Waterloo

August 2019

B.Math. *with Distinction - Dean's Honours List (Highest Honours)*

Majors : Computer Science, Combinatorics and Optimization

PAPERS UNDER REVIEW

- **Delegating data collection in decentralized machine learning.** *Manuscript in submission.*
Nivasini Ananthakrishnan, Stephen Bates, Michael I. Jordan, Nika Haghtalab. ([arXiv](#))
- **Strategic deletion in centralized learning mechanisms.** *Manuscript in submission.*
Nivasini Ananthakrishnan, Nika Haghtalab. ([PDF](#))

PUBLICATIONS

- **Identifying regions of trusted predictions.** *Uncertainty in Artificial Intelligence (UAI), 2021*([PDF](#))
Nivasini Ananthakrishnan, Shai Ben-David, Tosca Lechner, Ruth Urner.
- **On learnability with computable learners.** *International Conference on Algorithmic Learning Theory (ALT), 2020* ([PDF](#))
Sushant Agarwal, Nivasini Ananthakrishnan, Shai Ben-David, Tosca Lechner, Ruth Urner.

AWARDS AND GRANTS

- NSERC (National Science and Engineering Research Council) Canada Graduate Scholarship - Masters, 2020.
- David R. Cheriton Graduate Scholarship, 2019-2020.
- NSERC Undergraduate Research Award, 2019.

RESEARCH EXPERIENCE

University of Waterloo

Waterloo, Canada

Graduate research assistant

September 2018 - Present

Advisor : [Prof. Shai Ben-David](#)

Research in topics such as interpretability and fairness in machine learning and distribution dependent generalization bounds.

Alberta Machine Intelligence Institute*Research intern*

Edmonton, Canada

*May 2020 - Present*Advisors : [Prof. Csaba Szepesvári](#), [Prof. Lin Yang](#)

Research in multi-armed bandits and MDPs with multiple objectives.

University of Waterloo Computational Health Informatics Lab*Undergraduate research assistant*

Waterloo, Canada

*May 2018 - August 2018*Advisor : [Prof. Jesse Hoey](#)

Used Natural Language Processing techniques to develop algorithms to evaluate quality of online content on Alzheimer's Disease.

University of Waterloo Databases department*Waterloo, Canada*

Undergraduate research assistant

*September 2017 - December 2017*Advisor : [Prof. Grant Weddell](#)

Studied addition of restricted inverse features to a Description Logic dialect. Investigated optimizing the handling of equality relation in a database management system's reasoner.

INDUSTRY EXPERIENCE**Microsoft***Data Scientist Intern*

Vancouver, Canada

June 2021 - August 2021

Worked in the security team on automating security threat detection.

SideFX Software*Software Developer Intern*

Toronto, Canada

May 2017 - August 2017

Revamped the mesh parameterization tool by increasing accuracy and adding features for more user control. Implemented research on computational optimization techniques and image segmentation.

IBM - J9 Virtual Machine Team*Software Developer Intern*

Ottawa, Canada

May 2016 - August 2016

Designed, prototyped and documented an implementation of proposed Java feature - Value Types in the Virtual Machine.

ACTIVITIES

- Graduate student at University of California Berkeley for Introduction to statistical learning theory (CS 281A).
- Teaching Assistant at University of Waterloo for courses - Statistical and computational foundations of Machine Learning (CS 485), Logic and computation (CS 245), Operating systems (CS 350).
- Mentor in the Berkeley AI Research undergraduate research mentorship program.
- Reviewer for AISTATS (2023) conference, [Neurocomputing](#) (2020) journal.
- [Technovation](#) mentor - Mentored team of high school girls to build mobile app (January 2019 - December 2019).