Anvith Thudi

anvith.thudi@mail.utoronto.ca
+1 778-991-9726
https://www.anvith.com

First Year CS PhD student at the University of Toronto. Former Math Specialist student at UofT, and Concurrent Studies Student at SFU (attended while still in high school).

EDUCATION

University of Toronto, Toronto - Computer Science PhD
Sep. 2022 - ongoing
Co-advised by Prof. Nicolas Papernot and Prof. Chris Maddison

University of Toronto, Toronto - Math Specialist Student (BSc)
Jan. 2021 - June 2022
GPA: 3.92/4.0
Enrolled in predominantly 4th year/graduate courses, continuing my math education from SFU. Spent 2020 Fall in Engineering Science.

Simon Fraser University, Burnaby — During Highschool
Sep. 2017 - April 2020
GPA: 4.09/4.33
Followed a math major stream while still attending highschool.

RESEARCH EXPERIENCE

Cleverhans Lab (Machine Learning Privacy and Security)

Aug. 2020 - Ongoing
Part of Prof. Nicolas Papernot's lab affiliated with the University of Toronto and Vector Institute

Conference Papers:

1) "Proof of Learning: Definitions and Practice" *Hengrui Jia*, Mohammad Yaghini*, Christopher A. Choquette-Choo, Natalie Dullerud, Anvith Thudi, Varun Chandrasekaran, Nicolas Papernot* in Proceedings of the **42nd IEEE Symposium on Security and Privacy**, San Francisco, CA. (2021)
2) "On the Necessity of Auditable Algorithmic Definitions for Machine Unlearning" *Anvith Thudi, Hengrui Jia, Ilia Shumailov, Nicolas Papernot* in Proceedings of the **31st USENIX Security Symposium** https://arxiv.org/abs/2110.11891
3) "Unrolling SGD: Understanding Factors Influencing Machine Unlearning" *Anvith Thudi*, Gabriel Deza*, Varun Chandrasekaran, Nicolas Papernot* in Proceedings of the **7th IEEE European Symposium on Security and Privacy** https://arxiv.org/abs/2109.13398?context=cs.C

Prepints:

1) "Selective Classification via Neural Training Dynamics" *Stephan*

AWARDS

2020 Loran Scholarship
National Finalist (top 88 Highschool students in Canada)

UofT Engineering Entrance Scholarship ($5000)

UofT Math Entrance Scholarship ($7500, declined)

2020 Fall - Dean's Honours List

2022 Winter - Dean's List Scholar

UofT Galois Award

UofT Faculty of Arts and Science Doctoral Recruitment Award ($10000)

UofT Department of Computer Science Doctoral Entrance Scholarship ($10000)

UofT Nominee for Vanier Fellowship (national round ongoing)

UofT Nominee for PGS/CGS Fellowship (national round ongoing)

Rabanser, Anvith Thudi, Kimia Hamidieh, Adam Dziedzic, Nicolas Papernot https://arxiv.org/abs/2205.13532

2) "Bounding Membership Inference" *Anvith Thudi, Ilia Shumailov, Franziska Boenisch, Nicolas Papernot* https://arxiv.org/abs/2202.12232
3) "SoK: Machine Learning Governance" *Varun Chandrasekaran*, Hengrui Jia*, Anvith Thudi*, Adelin Travers*, Mohammad Yaghini*, Nicolas Papernot* https://arxiv.org/abs/2109.10870

* denotes equal contribution

Random Small Space Computation

May 2022 - Ongoing
Studying the literature on the RL = L problem under Prof. Sushant Sachdeva, focusing on how it can be pushed by incorporating advances in the Laplacian Paradigm

Classification of C*-Algebras

Sep. 2021 - May 2022
Studying the classification of C*-algebras and related topics under Prof. George Elliott. Culminated in several expository essays describing the key ideas behind core results or the connections between two separate fields (e.g graph theory and K-theory).

TALKS

The Unlearning Problem(s) - Meta

Unrolling SGD: Understanding Factors Influencing Machine Unlearning - Euro S&P 22'

On the Necessity of Auditable Algorithmic Definitions for Machine Unlearning - Usenix Security 22'