

## Vydhourie R.T. Thiyageswaran

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### EDUCATION

**University of Washington**, Seattle, WA, USA

September 2021 - (expected) June 2026

PhD in Statistics

Coursework includes Advanced Theory of Statistical Inference, and Advanced Regression Methods.

**Princeton University**, Princeton, NJ, USA

September 2017 - May 2021

B.A. Mathematics; GPA: 3.63; Sigma Xi

Minors (Certificates): Applied and Computational Mathematics, Statistics and Machine Learning, Theater

Mathematics Thesis: Last passage percolation and its scaling limit behaviour.

Thesis advisor: Dr. Duncan Dauvergne.

**Kolej Yayasan UEM**, Selangor, Malaysia

September 2015 - June 2017

Cambridge International A-Levels

4A\*s in Further Mathematics, Mathematics, Physics, Chemistry

Top in the World Award in Further Mathematics

### EXPERIENCE

**Institute of Computational Biology, Helmholtz Zentrum München, Germany**

*Summer Research Intern*

**June, 2021 - August, 2021**

Advised by Dr. Annalisa Marsico. Adapting the iOmicsPASS algorithm (based on nearest shrunken centroid methods) to identify sub-networks of genes deregulated during the infection of pneumonia-causing bacterium, *Legionella pneumophila*.

**Center for Statistics and Machine Learning, Princeton University**

*Independent Work*

**August, 2020 - April, 2021**

Advised by Professor Michael Guerzhoy. Implemented Gin Rummy-playing agent using Reinforcement Learning methods, as an extension of the summer research.

*Summer Undergraduate Student Researcher*

**June - August, 2020**

Advised by Professor Michael Guerzhoy. Worked with two other undergraduates, to submit an improved Gin Rummy agent using Random Forests learning methods for the Gin Rummy EAAI Undergraduate Research Challenge 2020. Paper submitted and presented at EAAI-21 conference.

**Mathematics Department, Princeton University**

**Program in Applied and Computational Mathematics, Princeton University**

*Independent Work*

**February, 2020 - April, 2021**

Advised by Professor Miklós Rácz. Studied opinion dynamics, consensus and convergence of opinions in social networks with concepts from probability. Proved convergence of opinions and consensus in mixtures of Voter and DeGroot opinion models using probabilistic methods. Extended study to multidimensional settings.

**Complexity Science Hub Vienna, Austria**

*Research Intern*

**June - November, 2019**

Advised by Professor David Garcia. Worked on a research project analyzing privacy aspects of users based on data of Twitter users on the social network and how this is affected by users leaving the network. This includes the use of natural language processing methods in identifying homophily

patterns within the social network.

**High Meadows Environmental Institute, Princeton University**

*Research Intern*

**June - August, 2018**

Advised by Dr. Fernando González Taboada. Worked on a research project studying mathematical models of economic, biological and environmental factors affecting the Atlantic Cod species in the Gulf of Maine fisheries.

**OTHER  
EXPERIENCES**

**Department of Statistics, University of Washington**

*STAT 311: Elements of Statistical Methods; Teaching Assistant* **September, 2021 - December, 2021**

**Department of Statistics, University of Washington**

*Directed Reading Program; Mentor*

**September, 2021 - December, 2021**

**Butler College, Princeton University**

*Residential College Peer Academic Advisor*

**July, 2020 - May, 2021**

**Operations Research and Financial Engineering, Princeton University**

*ORF 387: Networks; Undergraduate Course Assistant*

**February, 2021 - April, 2021**

**Center for Statistics and Machine Learning, Princeton University**

*SML 201: Introduction to Data Science; Undergraduate Course Assistant*

**August, 2020 -**

**December, 2020**

**All Her Power: The 50th Anniversary of Undergraduate Co-education Theater Project, Princeton University**

*Co-writer, co-director*

**August, 2019 - October, 2020**

**Video Production Agency, Princeton University**

*Executive Director*

**April, 2018 - May, 2019**

**Butler College, Princeton University**

*Residential College Sophomore Leader*

**August, 2018 - May, 2019**

**EduNation Malaysia**

*Online Mathematics Content Creator/Tutor/Intern*

**June - July, 2016**

**PROGRAMMING  
LANGUAGES**

Python, R, Java, MATLAB

**LANGUAGES**

English (bilingual), Malay (bilingual), Tamil (limited proficiency), Mandarin (elementary proficiency), Bahasa/Indonesian (elementary proficiency)