Mohamed **Nazaal** Ibrahim

mnazaal.com nazaal.ibrahim@aalto.fi

EDUCATION

Aalto University — **Espoo, Finland**

Doctoral Researcher in Machine Learning
Working on probabilistic models for interactive AI under the ELLIS PhD programme.
Main Supervisor: Professor Samuel Kaski
Advisor: Dr Ti John
Exchange Supervisor: Dr Stefano Albrecht
October 2021-Present

KTH Royal Institute of Technology — **Stockholm, Sweden**

Masters in Applied and Computational Mathematics
Thesis: Causal Discovery Algorithms for Context-Specific Models, supervised by Dr Liam Solus
August 2019-June 2021

University of Bristol — **Bristol, United Kingdom**

Bachelors in Mathematics and Computer Science
First class honours, 3rd in cohort
Thesis: On Latent Gaussian Process Regression & Bayesian Quadrature, supervised by Dr Carl Henrik Ek
September 2016-June 2019

Center for Higher Secondary Education — **Male', Maldives**

A-levels, Final year average 97%
May 2013-July 2015

EXPERIENCE

Teaching Assistant — **Espoo, Finland**
Dept. of computer science, Aalto University *February 2024 - April 2024*

- CS-E4895 Gaussian Processes

Research Assistant (Part-time) — **Stockholm, Sweden**
Department of Physics, KTH Royal Institute of Techology *January 2021-June 2021*

- Implementing deep learning models on CT imaging data related to Sweden's effort to provide better medical care for COVID-19 patients. Done in collaboration with the Karolinska Institute.

Research Intern — **Gothenburg, Sweden**
Huawei *June 2020 - August 2020*

- Worked on probabilistic machine learning methods for optimization problems arising in antennas

Research Intern — **Bristol, United Kingdom**
Visual Information Laboratory, University of Bristol *June 2018 - August 2018*

- Worked on Convolutional Neural Networks for semantic segmentation used for 6D pose estimation in drones

Teaching Assistant — **Bristol, United Kingdom**
Dept. of computer science, University of Bristol *September 2017 - June 2019*

- September 2017 - June 2018: Mathematical methods for Computer Scientists (Year 1 unit)
- September 2018 - June 2019: Lead TA for Mathematical methods for computer scientists (Year 1 unit), Coding and number theory (Year 2 unit), Algorithms (Year 1 unit), Probability and statistics (Year 1)

Intern **Male', Maldives**

Maldives Monetary Authority *August 2017 - September 2017*

- Worked as a web development intern in the Maldivian central bank

PAPERS

Targeted Causal Elicitation

- NeurIPS 2022 Workshop on Causality for Real-world Impact

SCHOLARSHIPS, ACHIEVEMENTS & POSITIONS OF RESPONSIBILITY

KAUTE Foundation Grant (∼ EUR 24 000) **KAUTE Foundation, Finland**

- Working grant for doctoral students. 10% of applications were funded.

KTH Scholarship (∼ USD 38 000) **KTH Royal Institute of Technology**

- Merit based scholarship covering full tuition fees, given to incoming international masters degree students. Acceptance rate ∼ 1.5% (30/2000+).

Maldivian President's Scholarship (∼ USD 130 000) **Rep. of Maldives**

- Most prestigious scholarship for Maldivian students given for achieving the highest grades in high school. Covers all expenses for undergraduate university education. Acceptance rate ∼ 1.4% (28/2000+).

Barry Thomas Scholarship (∼ USD 600) **University of Bristol**

- Given to the highest achieving international students starting at the University of Bristol

President, Bristol University Research Society **University of Bristol**

- President of the Bristol University Research University over the academic year 2018-19, overseeing increased membership and activities including talks from researchers and AI panel discussions with leading AI/ML researchers.

FUNKA Mentor **KTH Royal Institute of Technology**

- Working as a mentor for students with disabilities mainly related to study skills and organizing life at university

Highest National A-level Results in Mathematics, Accounting **Rep. of Maldives**

- Received Presidential Medals for getting 100^{th} percentile marks in both Accounting and Mathematics in the Pearson International A-levels.

3^{rd} place in Huawei AI Hackaton **Huawei**

- We were given images and labels and given 24 hours to get the best predictive performance. The first step was to identify the problem as semi-supervised image classification. Our (simple) solution involved using an autoencoder with convolutional layers, which were used to build the final classifier, and of course a fair amount of hyperparameter tuning.

Best product in Boeing Computer Science Society Hackaton **Boeing**

- Space-themed 24 hour event where we built a system which detects crashes based on an accelerometer attached to a helmet. Once a crash is detected, the satellite modem on the helmet sends a signal which can be seen on a simple web interface.

3^{rd} place in G-Research Sentiment Analysis challenge **G-Research**

- Team competition where we had to classify whether certain sentences about financial industry signified positive, negative or neutral sentiment. Solution involved using Python's NLTK and spaCy.