Kanchana Ruwanpathirana

Graduate Student (PhD)

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About me

I am a 3rd year grad student at the University of Utah currently enrolled in the PhD program at the School of Computing. I am aiming to leverage my knowledge of analytical methods, experimental design, research skills in the industry and expand my horizons. My interests include algorithm design, online learning, basic number theory, competitive mathematics and coding. Outside of the work, I'm also in to hiking and outdoor activities.

Skills

Java

Python

C,C++

Communication skills

Problem solving

Modules

University of Utah

Advanced Algorithms (A)
Data Mining (A)
Machine Learning (A)
Intro to Optimization (A)

University of Moratuwa, Sri Lanka

Distributed Systems (A)
Operational Research (A)

Coursera

Machine Learning
(Credential ID: 2YFH5MTU2EK9)
Computational Neuroscience
(Credential ID: Q6GSNPCJYPBT)

Education

since 2018 — Graduate Student (Ph.D.) — School of Computing, University of Utah
Current GPA: 4.0
Working with Prof. Aditya Bhaskara. Worked on projects in online learning and in principal component regression and matrix completion literature. Published a paper on online k-means clustering, at ALT 2020. A publication in submission for the matrix completion work at AISTATS.

2014-2017 — B.Sc. of Engineering — University of Moratuwa, Sri Lanka
Cumulative GPA: 4.09/4.20
Majored in Computer Science and Engineering

Publications

2020 — Robust Algorithms for Online k-means Clustering
Aditya Bhaskara, Aravinda Kanchana Rwanpathirana
Proceedings of the 31st International Conference on Algorithmic Learning Theory

Experience

2018 — Junior Consultant - University of Moratuwa, Sri lanka — TA/Management
Primary job tasks involved TA work for undergraduate classes, assisting in management tasks and assisting in creating and managing continuous assessments for incoming students

2017 — Student/Researcher — Research
Worked on simulating the visual cortex (V1) and the use of biologically plausible networks in ML and pattern recognition as part of the final year research project under Dr. Charith Chithraranjan at University of Moratuwa, Sri Lanka.

2016 — Visiting Research Fellow - SUTD, Singapore — ML in Music Research
Worked with Dr. Simon Lui from Singapore University of Technology and Design. Research project on recognizing emotions in music. Analysis of the mathematical model used in mapping acoustic feature space to emotional vector space and using ml techniques (i.e. SVM, NN etc.) to model it in to a continuous domain

Awards

2017 — NASA Space Apps 2017 — Global Finalist
Member of Team Codon which was a global finalist in Galactic Impact Category

2016 — International Mathematics Competition for University Students (23rd IMC) — Bronze Medal

2016 — IEEEXtreme 10.0 — World Top 100
World Rank:86 and Country Rank:02

2012 — International Mathematical Olympiad (53rd IMO) — Certificate

Activities

2012-2020 — Sri Lanka Olympiad Mathematics Foundation — Volunteer Member
Was involved in managing the web applications, exam management and proctoring. Currently assisting in creating a exam management system for the organization.

2016 — Mathematics Society - Univeristy of Moratuwa, Sri Lanka — Secretary
Involved in re-establishing the mathematics society and initiating a series of weekly talks by members and invited lecturers.