

# Kanchana Ruwanpathirana

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## EDUCATION

### UNIVERSITY OF UTAH

#### PH.D. IN COMPUTER SCIENCE

Fall 2023 | Salt Lake City, UT

Cur. GPA: 4.0 / 4.0

### UNIVERSITY OF MORATUWA

#### BSC OF ENGINEERING IN COMPUTER

#### SCIENCE & ENGINEERING

Dec 2017 | Sri Lanka

Cum. GPA: 4.09 / 4.20

## LINKS

Github: [kanchanarp](#)

LinkedIn: [kanchana-ruwanpathirana](#)

## COURSEWORK

### GRADUATE

Advanced Algorithms (A)

Data Mining (A)

Machine Learning (A)

Intro to Optimization (A)

Theory of Machine Learning (A)

### UNDERGRADUATE

Distributed Systems (A)

Operational Research (A)

### COURSERA

Machine Learning (Credential ID:

2YFH5MTU2EK9)

Computational Neuroscience (Credential

ID: Q6GSNPCJYPBT)

## SKILLS

### PROGRAMMING

Java • Python • Javascript • Matlab • C • C++

### TECHNICAL

Machine Learning • Data Mining •

Statistics • Data Science • Collaboration

## EXTERNAL PROJECTS

### ONLINE EXAM MANAGEMENT PLATFORM FOR SLOMF

Involved in designing an online exam system for Sri Lanka Olympiad Mathematics Foundation (SLOMF). The application was used in the initial selection exam in 2021

## EXPERIENCE

### UNIVERSITY OF UTAH | GRADUATE RESEARCH ASSISTANT

Fall 2018 - Present | Salt Lake City, UT

- Advised by Prof. Aditya Bhaskara. Research areas include robust online learning and high-dimensional statistics. Applications related to *Recommender Systems*.
- Have also collaborated with Prof. Suresh Venkatsubramaniam, Prof. Neal Patwari, and Pegah Nokhiz on work about the long-term effects of decision-making and fairness. One publication in AIES.

### UNIVERSITY OF MORATUWA | JUNIOR CONSULTANT

Jan 2018 - June 2018 | Sri Lanka

- TA tasks for undergraduate classes and assistance in grading.
- Management of certain course related work.
- Creating and managing continuous assessment tasks for incoming students.
- Assistance in managing MSc classes and exam invigilation.

### SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN |

#### VISITING RESEARCH FELLOW (INTERN)

Aug 2016 - Dec 2016 | Singapore

- Worked with Dr. Simon Lui at 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.

## PUBLICATIONS

- [1] A. Bhaskara, A. Kanchana Ruwanpathirana, and M. Wijewardena. Principal component regression with semirandom observations via matrix completion. In *Proceedings of The 24th International Conference on Artificial Intelligence and Statistics*, pages 2665–2673. PMLR, 2021.
- [2] A. Bhaskara and A. K. Ruwanpathirana. Robust algorithms for online  $k$ -means clustering. In *Proceedings of the 31st International Conference on Algorithmic Learning Theory*, pages 148–173. PMLR, 2020.
- [3] A. Bhaskara, A. K. Ruwanpathirana, and M. Wijewardena. Additive error guarantees for weighted low rank approximation. In *Proceedings of the 38th International Conference on Machine Learning*, pages 874–883. PMLR, 2021.
- [4] P. Nokhiz, A. K. Ruwanpathirana, N. Patwari, and S. Venkatasubramanian. Precarity: Modeling the long term effects of compounded decisions on individual instability. In *Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society*, page 199–208. Association for Computing Machinery, 2021.

## AWARDS

- |      |                               |  |
|------|-------------------------------|--|
| 2017 | Global Finalist (Team Member) | NASA Space Apps 2017   |
| 2016 | Bronze Medal                  | International Mathematics Competition for University Students (23rd IMC) |
| 2012 | Certificate of Participation  | International Mathematical Olympiad (53rd IMO)                           |