

# Danula Hettiachchi

PHD CANDIDATE AT THE UNIVERSITY OF MELBOURNE · CROWDSOURCING · SOCIAL COMPUTING

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## Summary

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I am a final year PhD candidate interested in crowdsourcing and social computing. I have extensive research experience in human-computer interaction, including quantitative methods and user studies complemented with prior industry experience in machine learning, data engineering, software development and analytics.

## Education

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### School of Computing and Information Systems, The University of Melbourne

Melbourne, Australia

PHD IN ENGINEERING

Feb 2018 - Present

- Thesis on data quality in crowdsourcing. Supervised by Dr. Jorge Goncalves and Prof. Vassilis Kostakos.

### Dept. of Computer Science and Engineering, University of Moratuwa

Sri Lanka

BSC (HONS) ENGINEERING

Oct 2011 - Apr 2016

- First Class. Specialised in Computer Science and Engineering.

## Work Experience

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### Amazon Web Services (AWS)

Seattle, US (Remote)

APPLIED SCIENTIST INTERN

Jun 2020 - Present

- Working with Amazon GroundTruth, Mechanical Turk and Augmented AI (A2I) teams.

### The University of Melbourne

Melbourne, Australia

CASUAL ACADEMIC

Jul 2018 - Present

- Tutor for courses including Machine Learning, Knowledge Technologies and Social Computing
- Completed Melbourne Teaching Certificate for Graduate Researchers at Melbourne Centre for the Study of Higher Education.

### Interaction Design Lab, The University of Melbourne

Melbourne, Australia

MANAGER, USABILITY LAB

Jun 2018 - Jan 2020

- Support a wide range of HCI research projects.
- Provided teaching support for courses including Evaluating User Experience, Usability Engineering and Usability Evaluation Methods.

### Sysco Labs (A Sysco Company)

Colombo, Sri Lanka

SOFTWARE ENGINEER

Apr 2016 - Feb 2018

- Worked in the data and analytics team.
- Principal engineer of customer profiling project, a solution to gather customer insights from over 2000 restaurants.
- Engaged with a real time ETL solution built using Apache Storm, a data warehouse for reports and data archival project.

### University of Moratuwa

Moratuwa, Sri Lanka

VISITING INSTRUCTOR, DEPT. OF COMPUTER SCIENCE AND ENGINEERING

Apr 2015 - Feb 2016

- For Database Systems and Presentation Skills.

### WSO2

Colombo, Sri Lanka

GOOGLE SUMMER OF CODE INTERN

May 2015 - Sep 2015

- Integrated a data cleaning tool to WSO2 Machine Learner by creating data transformations in Apache Spark to enhance the data preprocessing capabilities of the platform.

### WSO2

Colombo, Sri Lanka

SOFTWARE ENGINEERING INTERN

Oct 2014 - Apr 2015

- Built an R extension for WSO2 Machine Learner to generate and execute machine learning algorithms in R.
- Created an application to monitor Jenkins build failures using WSO2 Complex Event Processor.

## Selected Publications

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- CHI 2020** Hettiachchi, D., Sarsenbayeva, Z., Allison, F., van Berkel, N., Dingler, T., Marini, G., Kostakos, V., & Goncalves, J. "Hi! I am the Crowd Tasker" Crowdsourcing through Digital Voice Assistants. In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems 2020 (CHI'20) (pp. 1-14). ACM.
- INTERACT 2019** Hettiachchi, D., van Berkel, N., Hosio, S., Kostakos, V., & Goncalves, J. (2019). Effect of Cognitive Abilities on Crowdsourcing Task Performance. In IFIP Conference on Human-Computer Interaction (pp. 442-464). Springer, Cham.
- CSCW 2019** van Berkel, N., Goncalves, J., Hettiachchi, D., Wijenayake, S., Kelly, R. M., & Kostakos, V. (2019). Crowdsourcing Perceptions of Fair Predictors for Machine Learning: A Recidivism Case Study. Proceedings of the ACM on Human-Computer Interaction, 3(CSCW), 1-21.

## Teaching

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### The University of Melbourne

- COMP 30027 - Machine Learning, Tutor, 2020
- INFO 90007 - Social Computing (Graduate Course), Tutor, 2019
- COMP 90049 - Knowledge Technologies (Graduate Course), Tutor, 2019
- INFO 10003 - Fundamentals of Interaction Design, Tutor, 2018
- INFO 90004 - Evaluating the User Experience (Graduate Course), Teaching Support, 2019
- INFO 30004 - Usability Engineering, Teaching Support, 2019
- INFO 20004 - Usability Evaluation Methods, Teaching Support, 2018-2019

### University of Moratuwa

- CS 3042 - Database Systems, Visiting Instructor, 2015
- CS 2963 - Presentation Skills, Visiting Instructor, 2015

### Supervised MSc Thesis

- Tanay Arora (MSc, co-supervisor), The University of Melbourne, 2020
- Leonardus Elbert Putra (MSc, co-supervisor), The University of Melbourne, 2019
- Yue Wang (MSc, co-supervisor), The University of Melbourne, 2019
- Yangyang HE (MSc, co-supervisor), The University of Melbourne, 2019
- Kening Wu (MSc, co-supervisor), The University of Melbourne, 2018

### Training

- Melbourne Teaching Certificate for Graduate Researchers, Melbourne Centre for the Study of Higher Education, The University of Melbourne, 2019
- Foundations of Teaching and Learning for Graduate Researchers, Melbourne Centre for the Study of Higher Education, The University of Melbourne, 2019
- Teaching and Assessing Communications Skills Workshops, Melbourne School of Engineering, 2019

## Honors & Awards

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- 2018 **Best Paper**, 6th Annual Doctoral Colloquium, School of Computing and Information Systems, The University of Melbourne
- 2016 **Dean's List**, Faculty of Engineering, University of Moratuwa, Sri Lanka, (Semester 1,7 and 8)
- 2017 **Intrapreneur Award**, Sysco Labs
- 2013 **Runners up**, Hall of Fame for Engineering Excellence, Sysco Labs
- 2015 **Inclusive Student Leader**, Unilever Youth Forum, Sri Lanka

### SCHOLARSHIPS

- 2019 **Google Travel Scholarship**, School of Computing and Information Systems, The University of Melbourne
- 2019 **Melbourne School of Engineering Conference Travel Scholarship**, The University of Melbourne
- 2018 **Melbourne Research Scholarship**, The University of Melbourne
- 2011 **Mahapola Higher Education (Merit) Scholarship for Undergraduate Studies**, University Grants Commission, Sri Lanka

### COMPETITIONS

- 2014 **Runners Up**, Spirulation Hackathon, World Conference on Youth
- 2013 **52nd globally**, IEEEExtreme 7.0 programming competition
- 2013 **57th globally**, Bitwise 2013 programming competition
- 2012 **93rd globally**, IEEEExtreme 6.0 programming competition

## Skills

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**Programming** R, Python, NodeJS, SQL, Java

**Data Tools** Apache (Spark, Storm, Kafka), AWS (Lambda, S3, DynamoDB), Hadoop

**Research** Crowdsourcing, Voice Interaction, Quantitative Methods, User Studies

## Leadership & Volunteering

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### ACADEMIC SERVICES

#### Technical Programme Committee Member

- Data Chair, ACM Conference on Human Factors in Computing Systems (CHI) 2019

#### Programme Committee Member

- AAI Conference on Human Computation and Crowdsourcing (HCOMP) 2020
- Australian Conference on Human-Computer-Interaction (OzCHI) 2019

#### Organizing Committee Member

- Logistics Chair, Australian Conference on Human-Computer-Interaction (OzCHI) 2020
- Student Volunteer Chair, CHI DownUnder 2020

#### Conference and Journal Reviewing

- ACM Conference on Human Factors in Computing Systems (CHI)
- The Web Conference (WWW)
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
- ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)
- AAI Conference on Human Computation and Crowdsourcing (HCOMP)
- IFIP TC.13 International Conference on Human-Computer Interaction (INTERACT)
- AAI Conference on Web and Social Media (ICWSM)
- Australian Conference on Human-Computer-Interaction (OzCHI)

#### Student Volunteer

- ACM Conference on Human Factors in Computing Systems (CHI) 2019
- Australian Conference on Human-Computer-Interaction (OzCHI) 2018

### OTHER ROLES

#### School of Computing and Information Systems Graduate Researchers (CIS-GReS)

COMMITTEE MEMBER 2018/19

*The University of Melbourne*

2018 - 2019

#### Sysco Labs SL Toastmasters Club

VICE PRESIDENT PUBLIC RELATIONS 2017/18 & SERGEANT AT ARMS 2016/17

*Toastmasters International*

2016 - 2018

#### AIESEC in Sri Lanka

VICE PRESIDENT BUSINESS DEVELOPMENT 2015/16 & LOCAL COMMITTEE PRESIDENT 2014/15

*AIESEC*

2013 - 2016

#### Old Royalists Engineering Professionals Association

PRESIDENT - STUDENT CHAPTER 2015/16

*OREPA*

2015 - 2016