VINDULA JAYAWARDANA

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Computer Science and Engineering, University of Moratuwa, Katubedda 10400, Sri Lanka

 Vindulamj www.vindulaj.com

EDUCATION

University of Moratuwa, Sri Lanka *January 2014 - December 2017*
B.Sc Engineering (Hons) specialized in Computer Science and Engineering
First Class Honors with a GPA of 4.08 (Out of 4.2)
In Dean's Honors List in all eight consecutive semesters

Chartered Institute of Management Accountants (CIMA) *August 2013 - June 2014*
CIMA Dip. MA

Royal College Colombo 07, Sri Lanka *August 2012*
G.C.E. Advance Level Examination
Physical Science Stream - 3 Distinctions

Bhathkande Sangeet Vidyapit, Lucknow, India *2006 - 2008*
Visharad Madyam qualified violinist

PUBLICATIONS

Journal Articles

- V. Jayawardana, D. Lakmal, N. de Silva, A. S. Perera, K. Sugathadasa, B. Ayesha, and M. Perera, "Word vector embeddings and domain specific semantic based semi-supervised ontology instance population," *The International Journal on Advances in ICT for Emerging Regions (ICTer)*, vol. 11, no. 1, 2018

Conference Papers

- V. Jayawardana, D. Lakmal, N. de Silva, A. S. Perera, K. Sugathadasa, and B. Ayesha, "Deriving a representative vector for ontology classes with instance word vector embeddings," in *2017 Seventh International Conference on Innovative Computing Technology (INTECH)*, Aug. 2017, pp. 79–84. DOI: `10.1109/INTECH.2017.8102426`

- K. Sugathadasa, B. Ayesha, N. de Silva, A. S. Perera, V. Jayawardana, D. Lakmal, and M. Perera, "Synergistic union of word2vec and lexicon for domain specific semantic similarity," in *2017 IEEE International Conference on Industrial and Information Systems (ICIIS)*, Dec. 2017, pp. 1–6. DOI: `10.1109/ICIINFS.2017.8300343`

- V. Jayawardana, D. Lakmal, N. de Silva, A. S. Perera, K. Sugathadasa, B. Ayesha, and M. Perera, "Semi-supervised instance population of an ontology using word vector embedding," in *2017 Seventeenth International Conference on Advances in ICT for Emerging Regions (ICTer)*, Sep. 2017, pp. 1–7. DOI: `10.1109/ICTER.2017.8257822`

- K. Sugathadasa, B. Ayesha, N. de Silva, A. S. Perera, V. Jayawardana, D. Lakmal, and M. Perera, "Legal document retrieval using document vector embeddings and deep learning," in *Proceedings of the 2018 Computing Conference*, vol. 2, 2019, pp. 160–175. DOI: `10.1007/978-3-030-01177-2_12`

Articles

- V. Jayawardana, "System For Cross Domain Identity Management (SCIM)," *WSO2 Digital Library*, Oct. 2017. [Online]. Available: `http://bit.ly/wso2scim`

Academic Talks

- V. Jayawardana, *Ride sharing in mobility on demand systems: Opportunities, challenges and future*, talk at *DataDrives - Data science applications in technology based industries*, Trace Expert City, Colombo, Nov. 2018

RESEARCH EXPERIENCE

University of Moratuwa, Sri Lanka   January 2018 - Present
Data Science, Engineering and Analytics Research Hub(DataSEARCH) Graduate Research Assistant

· Advisors : Prof. Samitha Samaranayake, Dr. Shehan Perera and Dr. Uthayasanker Thayasivam
· Conducting experiments and evaluating the impact and effect of on-demand high capacity ride sharing in mobility on demand systems for Sri Lanka.

Cornell University, USA   June 2018 - August 2018
Mobility, Algorithms, and Society Lab (MAASLab)   *Research Assistant*

· Advisor : Prof. Samitha Samaranayake
· Implemented a state-of-art ride sharing algorithm from the literature and built a comprehensive validation framework for ride sharing.
· Developed and tested an algorithm to compute an optimal path for a given taxi with a set of passengers having multiple meeting points and also adhering to service constraints such as capacity, precedence, and waiting time.

University of Moratuwa, Sri Lanka   January 2017 - December 2017
Department of Computer Science and Engineering   *Undergraduate*

· Advisors : Dr. Shehan Perera and Mr. Nisansa de Silva
· Built an ontology-based legal information extraction framework.

PROFESSIONAL EXPERIENCE

Digital Mobility Solutions Lanka Pvt Ltd   January 2018 - Present
PickMe Engineering   *Consultant Research Engineer*

· Involved in optimizing the existing routing engine and the booking engine with a focus on optimizing fleet usage by passenger and taxi pooling.
· Developed routing algorithm which can accommodate multiple delivery requests per delivery person in PickMe Food delivery.

WSO2 Lanka Pvt Ltd   July 2016 - December 2016
Identity Server Team   *Software Engineering Intern*

· Mentor : Mr. Prabath Siriwardena
· Implemented SCIM 2.0 Support for WSO2 Identity Server.
· Implemented WSO2 Charon - SCIM 2.0 open source library of WSO2.

TEACHING

Teaching

   Co-lecturer, CS2022 - Data Structures and Algorithms   *Semester 2 and 4 (2018)*

Teaching Assistant

   CS3042 - Database Systems   *Semester 4 (2017-2018)*
   CS2052 - Computer Architecture   *Semester 2 (2018)*
   CS2062 - Object Oriented Software Development   *Semester 3 (2018)*

CS2963 - Presentation Skills	*Semester 3 (2017-2018)*
CS3962 - Research and Report Writing	*Semester 7 (2018)*
CS4052 - Professional Practice	*Semester 6 (2018)*

AWARDS AND HONORS

Migara Ranathunga Trust Award *2017/2018*
   – For Industrial Training for University Undergraduates

Gold Award at National Best Quality ICT Awards *2017*
   – Best ICT student technology project of the year

Academic Excellence Award 2017 *2017*
   – Department of Computer Science & Engineering, University of Moratuwa

Academic Excellence Award 2016 *2016*
   – Department of Computer Science & Engineering, University of Moratuwa

World Finalist in NASA International Space Apps *June 2017*
   – Within best 5 products in the world with the most potential to improve life on earth or in the universe out of 25,140 participants in 69 countries.

World Finalist in Air Asia Airvolutaion *March 2017*
   – Within top 20 products in the world. Organized by Air Asia in Malaysia.

Google Summer of Code *2017*
   – Designed and implemented a SCIM 2.0 Compliance Test Suite according to IETF specifications as a Google Summer of Code 2017 participant.

University Awards *2017*
   – Earned a special recognition for outstanding non-academic performance.

University Awards *2016*
   – Earned a special recognition for outstanding non-academic performance.

Winner in Google, I/O Extended Sri Lanka *2016*
Silver Medalist in Junior Science Olympiad Competition, Sri Lanka *2010*

ACTIVITIES AND SKILLS

Rotaract Club of Alumni of University of Moratuwa *March 2017 - Present*
   – Director Professional Development 2018/2019
   – Director Information Technology 2017/2018

Old Royalists Engineering Professionals' Association Student Chapter *April 2015 - April 2018*
   – Assistant Secretary 2017/2018
   – Director School Projects 2016/2017
   – Mentoring Program 2015 - Project Chairperson

Rotaract Club of University of Moratuwa *March 2014 - December 2016*
   – Project Chairperson and Event Coordinator

TECHNICAL SKILLS/COMPETENCIES

Programming Languages	C/C++, Python, Java, C#, PHP, Lua, JS
Database Management Systems	MySQL, MS SQL, Apache Cassandra
Software & Tools	LaTeX, Git, BitBucket

PERSONAL INFORMATION

Full Name : Vindula Muthushan Jayawardana
Citizenship : Sri Lankan
Interests and Skills :

– Travelling
– Eastern and Western classical music
– Blogging
– Public speaking