SUPUN ABEYSINGHE

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EDUCATION

Purdue University — West Lafayette, IN
Ph.D. in Computer Science — *Aug 2019 - Present*

University of Moratuwa — Sri Lanka
B.Sc Engineering (Hons) (Computer Science & Engineering) — *Oct 2014 - Dec 2018*
First Class Honours - GPA 4.06/4.20

PROJECTS

1. **End-to-end Optimization for High-performance Machine Learning Pipelines:** Leveraging code generation techniques to build a globally optimized high performance Machine Learning pipelines

2. **Server Parameter Auto-tuning using Machine Learning:** Leveraging Machine Learning optimization techniques (Bayesian optimization in particular) to dynamically auto-tune server parameters to enhance runtime performance

3. **Social Media Analytics Platform:** A platform which automatically extracts information related to a particular entity (e.g. restaurant reviews from multiple sources) and perform various types of analysis (emotion detection, aspect-based sentiment analysis, trending topics and evolution of them etc.)

WORK EXPERIENCE

Research Engineer, WSO2 Inc. Sri Lanka — *Jan 2019 - July 2019*
- Research on Server parameter auto-tuning. Done extensive performance tests to identify critical parameters. Experimented with heuristic approaches, Reinforcement Learning (RL) and Bayesian Optimization based approaches.

Research Intern, StatNLP Lab, SUTD Singapore — *Jun 2017 - Dec 2017*
- Research on Natural Language Processing. Mostly spent time in testing/implementing of StatNLP framework. Moreover explored graphical models, traditional machine learning models and deep learning models. Particularly looked at fake news detection task.

PUBLICATIONS

1. **ADAPT-T: An Adaptive Algorithm for Auto-Tuning Worker Thread Pool Size in Application Servers**
   *Nilushan Costa, Malith Jayasinghe, Ajantha Atukorale, **Supun Abeysinghe**, Srinath Perera, Isuru Perera*
   At International Symposium on Computers and Communications (ISCC), Barcelona, Spain (2019)

2. **Sentylic at IEST 2018: Gated Recurrent Neural Network and Capsule Network Based Approach for Implicit Emotion Detection**
   *Prabod Rathnayaka, **Supun Abeysinghe**, Chamod Samarajeewa, Isura Manchanayake, Malaka Walpola*
   At Workshop on Computational Approaches to Subjectivity, Sentiment & Social Media Analysis (WASSA held with EMNLP) (2018)

3. **Enhancing Decision Making Capacity in Tourism Domain Using Social Media Analytics**
   ***Supun Abeysinghe**, Isura Manchanayake, Chamod Samarajeewa, Prabod Rathnayaka, Malaka J. Walpola, Rashmika Nawaratne, Tharindu Bandaragoda, Damminda Alahakoon*
   International Conference in ICT for Emerging Regions (ICTer) (2018)

LANGUAGES AND TECHNOLOGIES

- **Languages:** Scala, Java, Python, C, C++

- **Technologies:** Spark, PyTorch, Tensorflow, CUDA