ASHWIN NARESH KUMAR

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EDUCATION

Carnegie Mellon University, School of Computer Science   **Pittsburgh, PA**
Master of Science, Intelligent Information Systems, Language Technologies Institute   *December 2018*
Coursework: Machine Learning, Machine Learning for Text Mining, Language and Statistics (Fall 2017)

PES Institute of Technology (PESIT)   **Bangalore, India**
Bachelor of Engineering, Computer Science and Engineering   *May 2016*
GPA: 9.74/10.0

SKILLS

Programming/Scripting Languages: Python, C, Java, C++, JavaScript, PHP, SQL
Frameworks and tools: Keras, TensorFlow, Git, OpenStack

EXPERIENCE

Brocade Communications Systems   **Bangalore, India**
Software Engineer   *July 2016 – July 2017*
- Designed and implemented a LSTM network for performing anomaly prediction in LTE network traffic using Google TensorFlow; Filed Provisional Patent on the proposed solution
- Developed a LSTM model capable of detecting inconsistencies in LTE protocol message exchanges in mobile traffic flows

Intern   *January – June 2016*
- Prototyped a smart load balancer using deep learning techniques for usage prediction to balance the mobile traffic on Enterprise Switches; Filed Provisional Patent on the proposed solution
- Implemented a CLI and REST framework for discovering connected LTE network components

Center for Cloud Computing and Big Data, PESIT [Pub] [Video]   **Bangalore, India**
Research Intern   *May – August 2015*
- Implemented a cloud federation solution for OpenStack using Nova cells (EMC^2 funded project) which was presented at the OpenStack Atlanta Summit 2014
- Architected a hybrid cloud solution for federating OpenStack and vmware vCloud Air using Nova Availability Zones (vmware funded project)

PROJECTS

Real-time Novel Event Discovery in Streaming News Articles [Ongoing]   **Pittsburgh, PA**
Carnegie Mellon University   *Fall 2017*
- Building a time-series event detection module using news document embeddings and an online clustering approach

Automated CAPTCHA Generation from Annotated Images using Encoder Decoder Architecture [Pub]   **Bangalore, India**
PES Institute of Technology   *Spring 2016*
- Developed a Question Generation system (questions with multiple answers) using annotated images as a knowledge base and proposed it as a CAPTCHA
- Built the system using a GRU Encoder Decoder architecture

Automated Content Suggestion for Document Writing [Pub]   **Bangalore, India**
PES Institute of Technology   *Fall 2015*
- Designed and implemented a system which provides content suggestions based on the document context
- Prepared content suggestion by performing keyword extraction, concept tagging from the document sliding windows and a web search on the extracted keywords and concepts
- Achieved a 42% decrease in document preparation time when compared to a manual composition

Cricket Match Summary Generation   **Bangalore, India**
PES Institute of Technology   *Fall 2015*
- Developed a cricket match summary generation system given the commentaries
- Scraped commentaries from the web and performed Named Entity Recogntion using a Recurrent Neural Network (RNN)
- Tagged commentaries with 'match events' using a MaxEnt model
- Generated a summary based on the outputs of the RNN and the MaxEnt model

News Debate Audio Analysis   **Bangalore, India**
PES Institute of Technology   *Spring 2015*
- Built subsystems to perform participant detection, emotion detection and keyword spotting on news debate audio samples using Hidden Markov Models (HMMs)
- Implemented Discrete HMMs to detect the number of speakers and Continuous HMMs for emotion detection and keyword spotting

ACHIEVEMENTS

- Winner at NVA Hackathon, Jan 2017, Brocade Communications, Bangalore among over 200 participants