SriKrishna Kompella

I teach Language..... To machines!

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Education

University of Massachusetts Amherst - Amherst, MA *Aug 2016 - Present*

Master of Science in Computer Science *GPA: 4.0*

- **Courses:** Advanced Machine Learning, Advanced NLP, Distributed Systems, Algos and Systems for Data Science, Quantum Computing

PES Institute of Technology - Bangalore, India *Aug 2009 - Jun 2013*

Bachelor of Engineering in Computer and Information Sciences *GPA:3.67*

Experience

The Hive - Palo Alto, CA *May 2017 - Sept 2017*

NLP Intern - Dialog Systems

- Building interactive dialog systems using end to end neural network models and real world datasets
- Improving memory and attention mechanisms(both CNN & RNN based seq2seq networks) to obtain more realistic and useful dialog
- Augmented dialog existing knowledge using multiple encoders (multi-task learning) to add more information to dialog

Nvidia Corp. - Bangalore, India *Jul 2013 - Jul 2016*

Tech Lead - Virtualization (Quality) *Oct 2014 - Jul 2016*

- Responsible for delivering test strategies, and automation tools for validating Nvidia's Hypervisor tech used in autonomous vehicles
- Developed multiple tools and test strategies to test components of the SoC like Memory Controller, UART, I2C, CAN etc
- Contributed to defining and implementing Automotive safety and quality policies
- **Achievement: Fastest promotion (in one year from joining as New College Grad) and youngest Lead in my Business unit**

Skills

Languages	Python, C++, C, Java, Bash
Tools	PyTorch, Keras, TensorFlow, SciKit Learn, NumPy, SciPy, OpenCV
Deep Learning	RNN, CNN, Memory Networks, Seq2Seq models, Reasoning over Attention and Memory
NLP	Dialog generation, Information Extraction, Question Answering, Text Classification

Projects

A new memory mechanism for dialog generation *July 2017 - August 2017*

Deep Learning, NLP *Python, PyTorch*

- Used a separate memory augmented encoder to encode prior conversation
- Working toward publishing this work

Interactive dialog using Convolutional Sequence to Sequence Networks *June 2017 - July 2017*

Deep Learning, Multi Task learning, NLP *Python, PyTorch*

- Reproduced the work of Gehring et al. and repurposing for Dialog generation

Generating Action Graphs from text using Probabilistic models and EM *Feb 2017 - Apr 2017*

Unsupervised Learning, Information Extraction, NLP *Python*

- Generate an action graph (like a flowchart) from text in a Material Science research paper.
- Defined and implemented probabilistic models and training them using the EM algorithm

Relation Extraction using Recurrent Neural Networks *Oct 2016 - Dec 2016*

Deep Learning, NLP *Python, PyTorch*

- Using RNNs for supervised relationship extraction
- Improved accuracies over existing works by just modifying the input vector representations

Domain adaptation using Deep Adversarial Neural Networks *Oct 2016 - Dec 2016*

Deep Learning, Domain Adaptation for NLP and Vision *Python, TensorFlow*

- Research Project in domain adaptation for sentiment analysis and object recognition
- Added new optimization objective which **improved classification accuracy up to 3% with text data and up to 6% with image data**

End to End Memory Networks *Oct 2016 - Dec 2016*

Deep Learning, NLP *Python, Keras*

- Reproduced the work originally published by Sukhbaatar et al. for question answering, language modeling and dialog selection