

Ajith Kumar M

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Education

Program	Institution	CGPA/%	Year of Completion
M.Tech. (Computer Science and Engg.)	Indian Institute of Technology Madras	9.1	2019
B.E. (Computer Science and Engg.)	Kongu Engineering College, Erode	8.13	2017
XII - TN HSC	Atomic Energy Hr. Sec. School Kalpakkam	89.6	2013
X - CBSE	Kendriya Vidyalaya No 1 Kalpakkam	9.0	2011

Key Projects

1. Attention-based LSTM over transformer memory for video captioning. June 2018 - May 2019
M.Tech. Project IIT Madras

- Introduced a novel architecture that integrates Transformer and LSTM.
- Utilized an external Language-Model to induce semantic consistency in the model during Training.
- Achieved **near State-of-the-Art** performance.

2. Image style alteration using convolutional neural networks. January - May 2017
B.E. Project KEC Erode

- Developed a deep learning architecture for learning the style and texture of one image and applying it to another.
- Best project** award for the year 2017 at KEC Erode.

Course Projects

1. Effective generation of negative samples in Word2vec using Wordnet. March - May 2018
Natural Language Processing IIT Madras

Experimented with a novel method of adding semantic information to Word2vec models.

2. Parallelizing dynamic time warping algorithm on GPU. October - November 2017
GPU Programming IIT Madras

Parallelized a version of dynamic time warping algorithm on GPU using CUDA.

Achievements

- Secured **99.77** percentile in GATE CS 2017.
- First place in programming event by **ACM-CEG** 2012.
- Outstanding performer at the "third eye technical voluntary group" hackathon.
- Star TA award for the spring semester of 2018.

Course Work

- Machine Learning:** Pattern Recognition, Deep Learning, Reinforcement Learning, Natural Language Processing
- Programming and Algorithms:** Advanced Data Structures and Algorithms, GPU Programming
- Mathematics:** Linear Algebra and Random Processes

Technical Skills

- Languages:** C, C++, Python, Java, CUDA
- Machine Learning Libraries:** Tensorflow, Keras, Scikit-Learn
- Version Control Systems:** Git

Positions of Responsibility

- Teaching Assistant, Deep Learning course at IIT Madras. (January - May, 2019)
 - Designed and evaluated the course assignments.
- Teaching Assistant, GPU Programming course at IIT Madras. (July - November, 2018)
 - Built a **Kubernetes** based GPU cluster and an interface to easily access the cluster (still functional at IIT Madras).
 - Designed and evaluated the course assignments.
 - Mentored 8 students(B.Tech and Dual-Degree) for their course project.
- Teaching Assistant, Introduction to Programming course at IIT Madras. (January - May, 2018)
 - Mentored 5 students(B.Tech) throughout the course.