Shreesh Ladha

shreeshl.github.io | shreesh.ladha@gmail.com | 4138009438

EDUCATION

UNIV. OF MASSACHUSETTS, AMHERST
M.S in Computer Science
(Focus on Artificial Intelligence)
Graduated May'19 | Amherst, MA
GPA: 4.0 / 4.0

COURSEWORK :
Information Retrieval
Natural Language Processing
Probabilistic Graphical Models
Computer Vision
3D Computer Vision
Database Design and Impl.
Reinforcement Learning

INDIAN INST. OF TECHNOLOGY, KANPUR
B.S in Math And Computing
Graduated Jun'16 | Kanpur, India

COURSEWORK :
Convex Optimization
Data Structures and Algorithms
Time Series Analysis

SKILLS

PROGRAMMING
Python • Tensorflow • Pytorch • SQL • C++ • Matlab • NumPy • sklearn

SCHOLARSHIPS

• Inspire Scholarship awarded by Govt. of India (Funded 75% of my entire undergrad tuition).
• Merit Scholarship awarded by Neerja Modi School (Funded 100% of my XI, XII tuition).

ACTIVITIES

COURSE ASSISTANT
• Assistant for a grad level Computer Vision course. Responsible for grading of assignments and mini projects.

KEYBOARDIST AND PIANIST
• Awarded certificate of distinctions for piano (initial) and keyboard (4th level) playing skills by Trinity College, London.

COORDINATOR, IITK MUN
• Co-lead, organized and coordinated the entire event of 200+ participants

WORK ESXPERIENCE

FACEBOOK | Software Engineer - ML
Jul'19 – Present | Menlo Park, CA

- As part of Messenger Ads Ranking team, working on improving core optimization and quality of ads being served to users

SYNOPSYS | Machine Learning Intern
Jun'18 – Aug'18 | Mountain View, CA

- Led a project on transforming natural language descriptions to source code in verilog using RNNs.
- Experimented with ideas from machine translation & slot filling to model the problem.

SAMSUNG RESEARCH | Software Engineer
Jun'16 – Jun'17 | Bengaluru, India

- As part of NLU Research group, worked on intent recognition and entity extraction using RNN's for Bixby, Samsung's virtual assistant.
- Led the development of "Call" domain including maintaining data, developing/training models and ensuring a high accuracy.

SAMSUNG RESEARCH | Software Engineering Intern
Jun'15 – Aug'15 | Bengaluru, India

- Created an internal system for analyzing and suggesting improvements in Samsung's voice assistant using Apache Spark.
- Applied classification and clustering algorithms on terabytes of data (user logs) to better understand consumer behaviour.

NOTABLE PROJECTS

SINGLE IMAGE SUPER RESOLUTION USING CNNS [report]

- Implemented a fully convolutional net based on the ResNet architecture (in PyTorch) for transforming a Low Resolution (LR) image to High Resolution (HR).
- Experimented with algorithms to improve the resolution by providing an additional HR image similar to the LR image during training.

YOUTUBE-8M VIDEO UNDERSTANDING [code]

- As part of a Kaggle competition, experimented with different CNN architectures (in Tensorflow) for adaptive pooling of frames within a Youtube video for classification task on Google Cloud.
- Ranked in the top 12% in the competition, comprising of close to 400 teams.

CROSS LINGUAL EMBEDDINGS FOR POS TAGGING [report]

- Explored methods of transferring information from high resource languages to improve the performance of POS-Taggers for languages with low resources in a completely semi-supervised way.
- Used the tags obtained in this fashion in multiple auxiliary tasks and obtained significant improvement in accuracies.

A SURVEY OF ZERO SHOT LEARNING [report] [poster]

- Studied 6 different methods of performing Zero Shot Learning(ZSL) - prediction of a label that has not been seen during the training procedure.
- Implemented two contemporary papers from ZSL area which required learning a common semantic space for embedding images and labels.