Ashish Gupta

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INTERESTS

Machine Learning, Natural Language Processing, Information Extraction, Information Retrieval, Reinforcement Learning

EDUCATION

M.Tech(CSE) with specialisation in Machine Learning

- **IIIT Bangalore**, Bangalore, Karnataka — Jul 2016 – Jul 2018
  - Thesis: Neural Attention Reader for Video Comprehension
  - Adviser: Prof. Manish Gupta
  - Focus: Information Retrieval, Information Extraction, Videos, Attention Mechanism, Bidirectional LSTM, Distant Supervision, Differential Weighing

B.Tech in CSE

- **SRMCEM**, Lucknow, Uttar Pradesh — Aug 2008 – Jun 2012
  - Deans List for 3 years.

RELEVANT EXPERIENCE

Walmart Labs India,Bangalore

- **Data Scientist** — Aug 2019 – Present
  - Working in Catalog Data Science team.
  - Built deep learning models for attribute extraction from text.
  - Developed a Smart normalization tool to match the non-standard/junk text present in the catalog to the standard text.
  - Developed BERT based models for classification and sequence labeling in Multi-lingual models.
  - Lead an initiative to build an autotagger tool for reducing the amount of tagged data and build efficient models with limited data.
  - Worked on jointly leveraging strong supervision data along with weak supervision data to train neural models.
- **Senior Statistical Analyst** — Jul 2018 – Jul 2019
  - Lead an initiative on constrained assortment optimization for products
  - Worked on retail graph for home and furniture section, which includes entity extraction, style prediction.

VideoKen Software Pvt. Ltd, IIIT Bangalore Innovation Centre

- **Visiting Researcher** — Jan 2018 – Jun 2018
  - Worked on neural multi-task reader for Video Comprehension. Used Attention Mechanism, Bidirectional LSTM, self-attention and did meaningful bifurcations of the raw text to complete the task.

IIIT Bangalore, Bangalore

- **Teaching Assistant** — Jan 2018 – Jun 2018
  - Teaching Assistant for courses: Maths for Machine Learning and Practical Machine Learning

Tata Consultancy Services, Kolkata

- **Systems Engineer(Data)** — Nov 2012 – Jun 2016
  - Worked in Oracle apps (an ERP tool) as an OTR consultant. Worked in GE Healthcare projects.
  - Worked in SCM(Supply Chain Management), Purchase Order and Order Management modules of Oracle apps.
  - Worked in project Germany LCS Project, WIPROGE LE Merger, Oracle R12 upgrade where I made and updated some of the custom PL/SQL codes.

PUBLICATIONS

- **Joint Attention Neural Model for Demand Prediction in Online Marketplaces**
  - Ashish Gupta, Rishabh Mehrotra in NLDL 2020.
- **Hyperparameter optimization with REINFORCE and Transformers**
  - Chepuri Shri Krishna, Ashish Gupta, Swarnim Narayan, Himanshu Rai, and Diksha Manchanda got accepted in IEEE BigData 2020.
- **Ultron-AutoML: an open-source, distributed, scalable framework for efficient hyper-parameter optimization**
  - Swarnim Narayan, Chepuri Krishna, Varun Mishra, Abhinav Rai, Himanshu Rai, Chandrakant Bharti, Gursirat Singh, Ashish Gupta, and Nitinbalaji Singh in IEEE BigData 2020.
- **Learning with Limited Labels via Momentum Damped Differentially Weighted Training**
  - Rishabh Mehrotra, Ashish Gupta in KDD 2020.

- **Sequence-aware Reinforcement Learning over Knowledge Graphs**
  - Ashish Gupta, Rishabh Mehrotra in RecSys REVEAL 2019.
- **Neural Attention Reader for Video Comprehension**
  - Ashish Gupta, Rishabh Mehrotra, Manish Gupta in KDD Deep Learning Day 2018.

PATENTS

- **Ultron-AutoMLv2: a distributed framework for efficient hyper-parameter optimization (HPO) of ML models**
  - Chepurishri Krishna, Amit Agarwal, Ashish Gupta, Swarnim Narayan, Himanshu Rai, Varun Mishra, Abhinav Rai, Chandrakant Bharti, Gursirat Singh and Nitinraj Balajisingh

BLOGS

- **An Introduction to Meta-Learning**
- **Introduction to Reinforcement Learning**

PROJECTS

Deep Recurrent Generative Decoder for Abstractive Text Summarization (EMNLP 2017)
Sequence to sequence oriented encoder decoder model with attention mechanism and variational auto encoders.

- Novel approach to text summarization with GRU and attention mechanism. Oct 2019 – Dec 2019

Hierarchical Attention Networks for Document Classification
Implementation of Hierarchical Attention Networks paper NAACL 2016.

- Movie reviews from IMDB dataset are used for prediction. Mar 2018 – Mar 2018

Image-based recommendations on Styles and Substitutes,
Guide:- Prof. Dinesh Babu Jayagopi

- Recommending apparels to users based on their choice and the complementary products.This work was done on a subset of Amazon dataset.
  Click here to checkout the video. Mar 2017 – May 2017

ACHIEVEMENTS / CO-CURRICULAR ACTIVITIES

- Top 12%(Placed 30 out of 252 teams) in KDD 2019 | Policy Learning for Malaria Control - Maximize rewards for malaria prevention sequential decision making task.
- Top 20%(Placed 303 out of 1571 teams) in Google QUEST Q&A Labeling - Improving automated understanding of complex question answer content.
- Top 3%(Placed 94 out of 4037 teams) in Quora Insincere Question Classificatiomn - To identify and flag insincere questions in Quora.
- Top 1.4%(Placed 28 out of 2000 teams) in Microsoft AI India Challenge 2018 - Ranking passage according to relevance containing answer to a given question.
- Top 12%(Placed 454 out of 3967 candidates) in Kaggle (TalkingData AdTracking Fraud Detection) Challenge - Predicting whether a user will download an app after clicking a mobile app ad.
- Achieved AIR 56 in ISRO Scientist/SC exam(July‘16).
- Qualified GATE‘16 with 98.8 percentile(Feb‘16).

AWARDS & SCHOLARSHIPS

- Winner of AI Hackathon organized by Target HR Bangalore Aug 2018
- Finalist in Synechron Hackathon, Bangalore Sep 2017
- Dean’s List, Fall 2008 through Spring 2011, SRMCEM 2008 – 2011

PROFESSIONAL AFFILIATIONS & ACTIVITIES

Natural Language Processing with Attention Models

- Coursera 2020 – Present

Reviewer of IR Journal: Learning from User Interactions 2019 – Present

Sequence Models

- Coursera 2018 – Present

Association for Computing Machinery

- Student Member 2017 – Present

SKILLS

- Tensorflow, PyTorch, Keras, scikit-learn, spaCy, seaborn(Statistical Data Visualization)
- C, Java, Python
- Pycharm, Google Colab, AWS, Eclipse
- MySQL, MongoDB, MS SQL Server

LINKS

- Github:// **Ashish-Gupta03**
- LinkedIn:// **ashishgupta031**
- Kaggle:// **eashish**
- Hackerearth:// **@AshishG03**
- Hackerrank:// **MT2016026**

COURSEWORK

- Introduction to Text Processing and Information Retrieval
- Machine Learning
- Machine Perception
- Foundations of Big Data and Algorithms
- Linear Algebra