IrshadAhmad Bhat | *CurriculumVitae*

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🖱 https://irshadbhat.github.io

Education

Master's in Computer Science and Engineering   Jan. 2015–July 2018
IIIT-H Gachibowli   *Hyderabad, India*

Bachelor's in Computer Science and Engineering   Sept. 2010–Aug. 2014
Govt. College of Engineering and Technology   *Jammu, India*

Work Experience

Bengaluru, India   Feb. 2018–Present
Active Intelligence LLP   *Research Scientist*

- **NLU/NLG for Virtual Assistants**:

  As part of NLU/NLG team, I work on sequence-to-sequence models for dynamic response reformulation, paraphrasing, machine translation etc. I also work on adapting statistical parsers to conversational data and utilizing parse tree information in novel frameworks for slotfilling, relation extraction etc.

MS Thesis

Title: *Universal Dependency Parsing of Hindi-English Code-switching*

Supervisor: Dr. Manish Shrivastava

Research Interests

Syntactic Parsing: Application of fast and efficient transition-based parsing algorithms for syntactic analysis of monolingual and code-switching texts.

Sequence-to-Sequence Modelling: Application of sequence-to-sequence models for machine translation, dynamic response re-formulation, paraphrasing etc.

Courses

Artificial Neural Networks: under Prof. B. Yegnanarayana – GRADE A-

Natural Language Processing: under Dr. Manish Shrivastava – GRADE A

Statistical Methods in AI: under Prof. Bapi Raju – GRADE A

Optimization Methods: under Dr. Kannan Shrinathan – GRADE B-

Machine Learning: under Prof. C. V. Jawahar – GRADE A

Teaching Experience

Teaching Assistant at IIIT Hyderabad

○ **2015**: Statistical Methods in AI (CSE471)

Language Resource Contributions

2014–present

○ **Hindi-Urdu Treebanking Project**:

As an RA for Hindi-Urdu treebanking project, I have been maintaining the annotation pipeline of the Urdu dependency treebank. The work mainly involves creating and assigning annotation tasks to the annotators.

○ **Universal Dependency (UD) Treebank for Hindi-English Code Switching**:

A high quality UD trebank of 1950 sentences for Hindi-English Code Switching texts. (Project Link)

○ **Neural Stacking Dependency Parsers for Code Switching texts:**:

Neural Stacking Dependency Parsers for monolingual, multilingual and code switching data. This repository contains the source code described in our paper Universal Dependency Parsing for Hindi-English Code switching (NAACL 2018). (Project Link)

○ **Language Identification and Normalization in Code Switching:**:

Language identification and back-transliteration/normalisation in code switching data tailored with a three-step decoding process. This repository contains the source code described in our paper Universal Dependency Parsing for Hindi-English Code switching (NAACL 2018). (Project Link)

○ **Google Summer of Code 2016 (GSoC)**:

I worked for Libindic organization under the Google Summer of Code 2016 and contibuted towards automatic script transliteration between scheduled languages of India including English. (Project Link)

Professional Services

Reviewing

○ **Primary Reviewer**:
  ICON
○ **Secondary Reviewer**:
  CONLL

Technical Qualifications

Programming: python, C, C++, Perl, shell scripting, java script

Protocols: LaTeX, html, xml, json, css

Databases: MySQL

Editors: Vim, Nano, Emacs

Publications

Journal Articles   2015

- Riyaz Ahmad Bhat, Irshad Ahmad Bhat and Dipti Misra Sharma. *Improving Dependency Parsing of Hindi and Urdu by Modeling Syntactically Relevant Phenomena.* ACM Transactions on Asian and Low-Resource Language Information Processing (TALIP).
- Riyaz Ahmad Bhat, Irshad Ahmad Bhat, Naman Jain and Dipti Misra Sharma. *Bridging the Script and Lexical Barrier between Hindi and Urdu for Resource Sharing and Augmentation.* Natural Language Engineering (Conditional Acceptance).

Conferences Papers   2018

- Irshad Ahmad Bhat, Riyaz Ahmad Bhat and Manish Shrivastava, Dipti Misra Sharma. *Universal Dependency Parsing for Hindi-English Code-switching. In Proceedings of the 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) 2018, New Orleans, Louisiana.*

Conferences Papers   2018

- Riyaz Ahmad Bhat, Irshad Ahmad Bhat, and Srinivas Bangalore. *The SLT-Interactions Parsing System at the CoNLL 2018 Shared Task. In Proceedings of the CoNLL 2018 Shared Task: Multilingual Parsing from Raw Text to Universal Dependencies.*

                                                                                  2017

- Riyaz Ahmad Bhat, Irshad Ahmad Bhat and Dipti Misra Sharma. *Leveraging Newswire Treebanks for Parsing Conversational Data with Argument Scrambling.* In Proceedings of the 15th International Conference on Parsing Technologies (IWPT) 2017, Pisa, Italy.
- Irshad Ahmad Bhat, Riyaz Ahmad Bhat, Manish Shrivastava and Dipti Misra Sharma. *Joining Hands: Exploiting Monolingual Treebanks for Parsing of Code-mixing Data.* In Proceedings of the European Chapter of the Association of Computational Linguistics (EACL) 2017, Valencia, Spain.

                                                                                  2016

- Riyaz Ahmad Bhat, Irshad Ahmad Bhat and Dipti Misra Sharma. *A House United: Bridging the Script and Lexical Barrier between Hindi and Urdu.* The 26th International Conference on Computational Linguistics (COLING 2016).

                                                                                  2014

- Irshad Ahmad Bhat, Vandan Mujadia, Aniruddha Tammewar, Riyaz Ahmad Bhat and Manish Shrivastava. IIIT-H System Submission for FIRE2014 Shared Task on Transliterated Search. The Forum for Information Retrieval Evaluation (FIRE 2014).

References

Prof. Dipti Misra Sharma: Professor, Language Technology Research Centre, International Institute of Information Technology, Hyderabad, Telangana, India.
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Dr. Manish Shrivastava: Assist. Professor, Language Technology Research Centre, International Institute of Information Technology, Hyderabad, Telangana, India.
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Dr. Radhika Mamidi: Associate Professor, Language Technology Research Centre, International Institute of Information Technology, Hyderabad, Telangana, India.
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