https://github.com/irshadbhat

IrshadAhmad Bhat | *CurriculumVitae*

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

Machine Transliteration: Bidirectional script transliteration between Indic and Roman scripts.

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

- **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 Dependencies**:
  My contributions include addition of datasets with Universal Dependencies for Code-Switching Hindi-English and movie scripts.
- **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). (https://github.com/irshadbhat/nsdp-cs)
- **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. (https://github.com/libindic/indic-trans)

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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