Pradeep Dasigi

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Research and Professional Experience

- **Graduate Research Assistant**
  Language Technologies Institute — Pittsburgh, PA
  Carnegie Mellon University — *August 2013 – Present*

  Used Deep Learning methods to model implicit knowledge in text and applied them to
  * anomaly detection in newswire data
  * commonsense extraction
  * extracting latent structure in experiment descriptions

- **Research Intern**
  Microsoft Research — *Redmond, WA*
  May 2014 – August 2014

  Developed end-to-end single turn conversational systems based on Interactive Labeling, which led to Language Understanding Intelligent Service (LUIS), a part of Microsoft's Project Oxford.

- **Software Engineer**
  Safaba Translation Solutions — *Pittsburgh, PA*
  August 2012 – August 2013

  Involved in the research, development and deployment of phrase based Machine Translation systems and engineering the back-end architecture

- **Research Intern**
  Knowledge and Decision Systems — Princeton, NJ
  Siemens Corporate Research — *April 2012 – July 2012*

  Query Expansion for Patent Invalidation: Developed a module that performed Query Expansion using Distributional Similarity between words to produce lexical substitutes.

- **Graduate Research Assistant**
  Center for Computational Learning Systems — New York, NY
  Columbia University — *September 2011 – March 2012*

  Used clustering algorithms on vector space models towards a wide range of applications: Spelling Correction, Word Sense Induction for measuring semantic coherence, Community Mining in Social Networks

- **Research Assistant**
  Department of Electrical Engineering and Computer Science — Ann Arbor, MI
  University of Michigan — *July 2011 – August 2011*

  Community Mining in Social Networks: Developed a system that used presence of sentiment features like sarcasm and informal speech to infer emergence of subgroups in threaded discussions

- **Research Assistant**
  Language Technologies Research Center — Hyderabad, India
  International Institute of Information Technology — *2009 – 2010*

  Machine Transliteration and Cross Language Information Retrieval: Applied approximate string matching based Transliteration techniques to CLIR across Indian languages

Publications

- *Rapidly scaling dialog systems with interactive learning*
  Jason D. Williams, Nobal B. Niraula, Pradeep Dasigi, Aparna Lakshmiratan, Carlos Garcia Jurado
  Suarez, Mouni Reddy, and Geoff Zweig.
  International Workshop on Spoken Dialog Systems. 2015

- *Modeling Newswire Events using Neural Networks for Anomaly Detection*
  Pradeep Dasigi and Eduard Hovy.
  Proceedings of COLING 2014, the 25th International Conference on Computational Linguistics. 2014

- *Reranking with Linguistic and Semantic Features for Arabic Character Recognition*
  Nadi Tomeh, Nizar Habash, Ryan Roth, Noura Farra, Pradeep Dasigi and Mona Diab.
  Proceedings of the 51st Annual Meeting of ACL. 2013

- *Genre Independent Subgroup Detection in Online Discussion Threads: A Pilot Study of Implicit Attitude
  using Latent Textual Semantics*
  Pradeep Dasigi, Weiwei Guo, Mona Diab.
  Proceedings of the 50th Annual Meeting of ACL. 2012

- *Subgroup detection in ideological discussions*
  Amjad Abu-Jbara, Pradeep Dasigi, Mona Diab, Dragomir Radev.
  Proceedings of the 50th Annual Meeting of ACL. 2012

- *CODACT: Towards Identifying Orthographic Variants in Dialectal Arabic*
  Pradeep Dasigi, Mona Diab.
  The 5th International Joint Conference on Natural Language Processing. 2011

- *Named Entity Transliteration Using A Statistical Machine Translation Framework*
  Pradeep Dasigi, Mona Diab.
  Named Entity Workshop (NEWS) 2011, The 5th International Joint Conference on Natural Language Processing. 2011

- *Experiments in CLIR Using Fuzzy String Search Based on Surface Similarity*
  Sethuramalingam S, Anil Kumar Singh, Pradeep Dasigi and Vasudeva Varma.
  Proceedings of the *32nd Annual SIGIR Conference*. 2009

Patents

- Co-inventor on a patent application submitted on methods for efficiently building language understanding models for dialog systems, based on work at Microsoft Research.

Education

- **Carnegie Mellon University**   **Pittsburgh, PA**
  Language Technologies Institute   *Fall 2013 – Present*
  Ph.D., Language and Information Technologies
  Advisor: Prof. Eduard Hovy

- **Columbia University**   **New York, NY**
  Fu Foundation School of Engineering and Applied Science   *Fall 2010 – Fall 2011*
  M.S., Computer Science
  Advisor: Dr. Mona Diab

- **Vellore Institute of Technology**   **Tamil Nadu, India**
  B.Tech, Computer Science and Engineering   *2005 – 2009*