Varun Gangal

2nd Year PhD Student, CMU LTI

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vgtomahawk.github.io

RESEARCH AREAS

Natural Language Processing, Machine Learning

EDUCATION

- **Language Technologies Institute, CMU** — Pittsburgh, Pennsylvania

  PhD in Language Technologies; **GPA**: 4.0 — Sep. 2016 – Ongoing
    ○ **Advisor: Eduard Hovy**
    ○ Key Courses: *Grammars & Lexicons, Machine Translation, Language Grounding For Vision & Control, Neural Networks For NLP, Algorithms for NLP, Deep Reinforcement Learning, Structured Prediction for NLP*

- **Indian Institute of Technology, Madras (IIT-M)** — Chennai, India

  B.Tech/M.Tech. in Computer Science and Engineering; **CGPA**: 9.27/10 — Aug. 2011 – May. 2016
    ○ **Advisor: Balaraman Ravindran**
    ○ Key Electives: *Machine Learning, NLP, Reinforcement Learning, Memory Based Reasoning, Searching & Indexing, Knowledge Representation, Distributed Algorithms, Ontologies, Graph Theory*
    ○ Core Courses: *Networks, Databases, Operating Systems, Automata Theory, Compilers, Algorithms*
    ○ **GRE**: 337/340 (**Quant**: 170/170 **Verbal**: 167/170 **Analytical Writing**: 5.5/6)
    ○ **TOEFL**: 118/120 (**Reading**: 30/30 **Writing**: 30/30 **Listening**: 30/30 **Speaking**: 28/30)

PUBLICATIONS

- "Charmanteau: Character Embedding Models For Portmanteau Creation" [ARXIV][DEMO][CODE][DATA]
  Authors: Varun Gangal, Harsh Jhamtani, Graham Neubig, Eduard Hovy, Eric Nyberg
  Accepted for **EMNLP 2017, Copenhagen**

- "Detecting and Explaining Causes From Text For a Time Series Event" [ARXIV]
  Authors: Dongyeop Kang, Varun Gangal, Ang Lu, Zheng Chen, Eduard Hovy
  Accepted for **EMNLP 2017, Copenhagen**

- "Shakespearizing Modern Language Using Copy-Enriched Sequence-to-Sequence Models" [ARXIV][CODE]
  Authors: Varun Gangal, Harsh Jhamtani, Eduard Hovy, Eric Nyberg
  Accepted for **EMNLP 2017 Workshop on Stylistic Variation, Copenhagen**

- "HEMI: Hyperedge Majority Influence Maximization" [PDF]
  Authors: Varun Gangal, Balaraman Ravindran, Ramasuri Narayanam
  Accepted for **The Second IJCAI Workshop on Social Influence Analysis (SocInf 2016), New York**

- "Trust And Distrust Across Coalitions: Shapley Value Centrality Measures For Signed Networks" [PDF]
  Authors: Varun Gangal, Abhishek Narwekar, Balaraman Ravindran, Ramasuri Narayanam
  Accepted for **AAAI Student Abstract 2016**

- "Trust And Distrust Across Coalitions: Shapley Value Centrality Measures For Signed Networks" [PDF]
  Authors: Varun Gangal, Abhishek Narwekar, Balaraman Ravindran, Ramasuri Narayanam
  Accepted for **NIPS 2015 Workshop on Networks In the Social And Information Sciences**

PROFESSIONAL EXPERIENCE

- **Building Ad Customer Profile Using ML (CUPRUM)** — Bing Ads Team, Microsoft India

  Mentor : Prashant Rajoria — May – July 2014
    ○ Worked on building models of various aspects of Bing advertisters such as spamminess, malware and serveability using supervised machine learning methods, based on features from their ad pages.

- **Centrality and Influence in Unconventional Social Networks** — IBM Research, India

  Mentor : Ramasuri Narayanam — May – July 2015
    ○ Worked on centrality measures for unconventional social networks such as signed networks, multiplex networks and hypergraphs

TEACHING EXPERIENCE

- **Teaching Assistant - Neural Networks For NLP, Spring 2018**   **CMU**
- **Teaching Assistant - Grammars & Lexicons, Fall 2017**   **CMU**
- **Teaching Assistant - Machine Learning, Fall 2015**   **IIT Madras**
- **Teaching Assistant - Machine Learning MOOC, Spring 2016**   **NPTEL & IIT Madras**
- **Teaching Assistant - Reinforcement Learning, Spring 2016**   **IIT Madras**

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, Matlab, C++, C
- **Tools & Libraries :** Dynet, PyTorch, NLTK, NetworkX, Python-igraph, Scikit-Learn, Django

CO CURRICULAR ACTIVITIES

- **Reporting & Writing**
  - Correspondent For T5E [1], 2012-2013 & 2014-2015
  - Co-Author, Immerse[2] 2015 - Authored an article on Evolutionary Game Theory. [ARTICLE]
- **Social Initiatives**
  - NSS [3] Project Representative, Wikipedia Translation to Marathi - Part of a team of 3 representatives co-guiding a team of 10 volunteers for the translation of 60 educational Wikipedia articles on science, mathematics and history from English to Marathi, my native language.

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[1] IIT Madras news body

[2] IIT Madras research magazine

[3] National Service Scheme, IIT Madras.