

# PRANAV MANERIKER

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## RESEARCH INTERESTS

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Natural Language Processing, Structured Data Management, Network Science

## EDUCATION

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### The Ohio State University

PhD in Computer Science and Engineering. *GPA: 4.0/4.0*

August 2018 | Present

Advisor: Dr. Srinivasan Parthasarathy

### IIT Kanpur

B. Tech. Computer Science and Engineering. *GPA: 9.2/10*

June 2012 | Jun 2016

Minor in English Literature

## EXPERIENCE

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### The Ohio State University

*Research Assistant*

Columbus, Ohio

Aug 2018 | Present

- Ontology and relation modeling in transfer learning settings
- Semantic and stylistic analysis of text.

### Dataminr

*Research Intern*

New York City, New York

May 2021 | Aug 2021

- Work currently under NDA.

### Microsoft Research

*Research Intern*

Redmond, Washington

May 2020 | Aug 2020

- Malicious URL detection using state-of-the-art NLP models
- Scaled transformer models to train from scratch on large datasets across multiple nodes

### Amazon

*Applied Scientist Intern*

Seattle, Washington

May 2019 | Aug 2019

- Fraud detection in the Buyer Fraud team, Transaction Risk Management Systems
- Nonparametric regression, metric learning, and few-shot learning approaches
- Improved performance and reduced data requirements for fraud detection

### Adobe Research

*Research Scientist*

Bengaluru, India

June 2016 | Jul 2018

*Research Intern*

May 2015 | Jul 2015

- Natural language processing problems including text summarization, computational creativity and style and affect in text
- Statistical modeling of effectiveness with synthetic control based econometric methods
- Frequent itemset mining based models for large scale prediction
- Experiment design for evaluation of systems
- Work resulted in multiple patents and publications

### IIT Kanpur

*Teaching Assistant, Introduction to Programming*

*Teaching Assistant, Data Structures and Algorithms*

Kanpur, India

Jan 2016 | Apr 2016

Aug 2015 | Nov 2015

## PUBLICATIONS

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1. **Pranav Maneriker**, Yuntian He, Srinivasan Parthasarathy, **[SYSML: StYlometry with Structure and Multitask Learning: Implications for Darknet Forum Migrant Analysis](#)**, Conference on Empirical Methods in Natural Language Processing (EMNLP) 2021.
2. **Pranav Maneriker\***, Jack W. Stokes\*, Edir Garcia Lazo, Diana Carutasu, Farid Tajaddodianfar, Arun Gururajan, **[URLTran: Improving Phishing URL Detection Using Transformers](#)**, MILCOM 2021

3. Nikhita Vedula, Nedim Lipka, **Pranav Maneriker**, Srinivasan Parthasarathy, **Open Intent Extraction from Natural Language Interactions**, The Web Conference (WWW) 2020, **Best Paper Award**
4. Ritwick Chaudhry, Sumit Shekhar, Utkarsh Gupta, **Pranav Maneriker**, Prann Bansal, Ajay Joshi **LEAF-QA: Locate, Encode & Attend for Figure Question Answering**, Winter Conference on Applications of Computer Vision (WACV) 2020
5. Byung-Doh Oh\*, **Pranav Maneriker\***, Nanjiang Jiang\*. **THOMAS: The Hegemonic OSU Morphological Analyzer using Seq2seq**, SIGMORPHON Workshop, Association for Computational Linguistics (ACL) 2019
6. **Pranav Maneriker**, Nikhita Vedula, Hussein S. Al-Olimat, Jiayong Liang, Omar El-Khoury, Ethan Kubatko, Desheng Liu, Krishnaprasad Thirunarayan, Valerie Shalin, Amit Sheth, Srinivasan Parthasarathy. **A Pipeline for Disaster Response and Relief Coordination**, SIGIR 2019
7. Nikhita Vedula, **Pranav Maneriker**, Srinivasan Parthasarathy. **BOLT-K: Bootstrapping Ontology Learning via Transfer of Knowledge**, The Web Conference (WWW) 2019
8. Paridhi Maheshwari, Nitish Bansal, Surya Dwivedi, Rohan Kumar, **Pranav Maneriker**, Balaji Vasani Srinivasan. **Exemplar Based Experience Transfer**, Intelligent User Interfaces (IUI) 2019
9. Balaji Vasani Srinivasan, **Pranav Maneriker**, Kundan Krishna, Natwar Modani. **Corpus-based Content Construction**, International Conference on Computational Linguistics (COLING) 2018
10. Ritwik Sinha, Dhruv Singal, **Pranav Maneriker**, Kushal Chawla, Yash Shrivastava, Deepak Pai, Atanu Sinha. **Forecasting Granular Audience Size for Online Advertising** 2018 TargetAd and AdKDD (KDD workshop)
11. Gaurush Hiranandani, Kumar Ayush, Chinnaobireddy Varsha, Atanu Sinha, **Pranav Maneriker**, Sai Varun Reddy Maram **Enhanced Personalized Targeting Using Augmented Reality**, Poster, IEEE International Symposium on Mixed and Augmented Reality (ISMAR) 2017
12. Atanu Sinha, Meghanath Macha, **Pranav Maneriker**, Sopan Khosla, Avani Samdariya, Navjot Singh. **Anti-Ad Blocking Strategy: Measuring its True Impact**, 2017 TargetAd and AdKDD (KDD workshop)
13. Gaurush Hiranandani, **Pranav Maneriker**, Harsh Jhamtani. **Generating Appealing Brand Names**, Computational Linguistics and Intelligent Text Processing (CICLing) 2017
14. Natwar Modani, **Pranav Maneriker**, Gaurush Hiranandani, Atanu Sinha, Utpal, Vaishnavi Subramanian, Shivani Gupta. **Summarizing Multimedia Content** Web Information Systems Engineering (WISE) 2016

\* Denotes shared first authorship

## PATENTS

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- **P Maneriker**, R Sasidharan, A Sinha, **Facilitating changes to online computing environment by assessing impacts of temporary interventions**, US Patent 11,038,785. 2021
- BV Srinivasan, **P Maneriker**, N Modani, K Krishna, **Constructing content based on multi-sentence compression of source content**, US Patent 10,949,452. 2021
- R Sinha, **P Maneriker**, D Singal, A Sinha, **Identifying high value segments in categorical data**, US Patent 10,929,438. 2021
- A Sinha, M Yadagiri, **P Maneriker**, S Khosla, A Samdariya, N Singh, **Techniques to quantify effectiveness of site-wide actions**, US Patent 11,093,957. 2021
- BV Srinivasan, SK Saini, K Krishna, Anandhavelu N, T Goyal, **P Maneriker**, C Huesler, **Bundling Online Content Fragments For Presentation Based on Content-Specific Metrics and Inter-Content Constraints**, US Patent 10,891,667. 2021
- N Modani, V Subramanian, S Gupta, **P Maneriker**, Utpal, G Hiranandani, A Sinha, **Multimedia Document Summarization**, US Patent 10,762,283. 2020

- **P Maneriker**, A Natarajan, V Gupta, K Basava Raj, **Predicting style breaches within textual content**, US Patent 10,650,094. 2020
- **P Maneriker**, V Vinay, S Khosla, N Chhaya, N Modani, C Huesler, BV Srinivasan, A Natarajan, **Fact Replacement and Style Consistency Tools**, US Patent App. 16/123,966. 2020
- R Sinha, V Palanciuc, **P Maneriker**, M Dash, T Mohandoss, D Singal, **Accurate and interpretable rules for user segmentation**, US Patent App. 15/837,929. 2019
- N Modani, V Subramanian, S Gupta, **P Maneriker**, Utpal, G Hiranandani, A Sinha, **Determining quality of a summary of multimedia content**, US Patent No. 9,454,524. 2016

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#### SERVICE

- Reviewer, AAAI 2021, EMNLP 2021
- PC Member CODS-COMAD 2022
- Subreviewer, WWW 2020
- Volunteer, SIGIR 2019
- GUIDE peer mentor at Ohio State University (2021)

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#### AWARDS AND ACHIEVEMENTS

- **Aditya Birla Group Scholarship** (2012 - 2016) Awarded to about 15 students from the top Engineering Schools across India on the basis of academic and co-curricular excellence
- **Academic Excellence Award** (2013) Awarded to top 7% of the students in the university
- **International Collegiate Programming Contest (ICPC 2014)** Positioned 22<sup>nd</sup> among the top 250 teams across India in Amritapuri Regionals.
- **IIT JEE, AIEEE** (2012) Ranked 145 among 0.5 million, and 39 out of 1.2 million candidates respectively in National Engineering Entrance examinations

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#### RELEVANT COURSEWORK

Computational Linguistics, Algorithms, Parallel Computing, Probability and Statistics, Probabilistic Machine Learning, Machine Learning for Computer Vision, Optimization, Reinforcement Learning

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#### LANGUAGES AND FRAMEWORKS

Languages	Python, Java, C++, C, Bash (shell scripting)
Frameworks	PyTorch, Tensorflow, scikit-learn, Git

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#### EXTRA CURRICULAR EXPERIENCE

- Former National Record holder for Rubik's Cube one-handed and fewest moves solving (2013). Also, coordinated the activities of the Rubik's Cube Hubby Group on campus, including organizing an official World Cube Association Competition
- Actively involved in Literary Discussion Group at IIT Kanpur (2013-2016)
- Regular participant in (up to) half marathon distance runs.