

PRANAV MANERIKER

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RESEARCH INTERESTS

Natural Language Processing, Structured Data Processing, Network Science, Knowledge Graphs, Ontologies, Information Extraction, Stylometry, Graph Embedding

EDUCATION

The Ohio State University

MS in Computer Science and Engineering

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

August 2018 | Present

August 2018 | May 2023

Advisor: Dr. Srinivasan Parthasarathy

IIT Kanpur

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

Minor in English Literature

June 2012 | Jun 2016

EXPERIENCE

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.

Johns Hopkins University

Visiting Research Scholar

Baltimore, Maryland

Jun 2022 | Aug 2022

- Participated in the [SCALE 2022](#) program on Author Identification (AID)
- Lead the structure-based approach effort that aimed to utilize graph structure to improve AID.
- Also worked on curating large Reddit datasets for analysis of scaling laws.

Dataminr Inc.

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
- Work led to a patent and paper.

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 Associate

Research Intern

Bengaluru, India

June 2016 | Jul 2018

May 2015 | Jul 2015

- Natural language processing problems including text summarization, computational creativity and style 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

PUBLICATIONS

- **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.
- **Pranav Maneriker***, Jack W. Stokes*, Edir Garcia Lazo, Diana Carutasu, Farid Tajaddodianfar, Arun Gururajan, **URLTran: Improving Phishing URL Detection Using Transformers**, (MILCOM) 2021
- Nikhita Vedula, Nedin Lipka, **Pranav Maneriker**, Srinivasan Parthasarathy, **Open Intent Extraction from Natural Language Interactions**, The Web Conference (WWW) 2020, **Best Paper Award**
- 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
- Byung-Doh Oh*, **Pranav Maneriker***, Nanjiang Jiang*. **THOMAS: The Hegemonic OSU Morphological Analyzer using Seq2seq**, (SIGMORPHON Workshop), Association for Computational Linguistics (ACL) 2019
- **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 Demo) 2019
- Nikhita Vedula, **Pranav Maneriker**, Srinivasan Parthasarathy. **BOLT-K: Bootstrapping Ontology Learning via Transfer of Knowledge**, The Web Conference (WWW) 2019
- Paridhi Maheshwari, Nitish Bansal, Surya Dwivedi, Rohan Kumar, **Pranav Maneriker**, Balaji Vasan Srinivasan. **Exemplar Based Experience Transfer**, Intelligent User Interfaces (IUI) 2019
- Balaji Vasan Srinivasan, **Pranav Maneriker**, Kundan Krishna, Natwar Modani. **Corpus-based Content Construction**, International Conference on Computational Linguistics (COLING) 2018
- Ritwik Sinha, Dhruv Singal, **Pranav Maneriker**, Kushal Chawla, Yash Shrivastava, Deepak Pai, Atanu Sinha. **Forecasting Granular Audience Size for Online Advertising** TargetAd and AdKDD (KDD workshop) 2018
- 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
- Atanu Sinha, Meghanath Macha, **Pranav Maneriker**, Sopan Khosla, Avani Samdariya, Navjot Singh. **Anti-Ad Blocking Strategy: Measuring its True Impact**, TargetAd and AdKDD (KDD workshop) 2017
- Gaurush Hiranandani, **Pranav Maneriker**, Harsh Jhamtani. **Generating Appealing Brand Names**, Computational Linguistics and Intelligent Text Processing (CICLing) 2017
- 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

- J Stokes, **P Maneriker**, A Gururajan, D Carutasu, E Lazo, **Phishing url detection using transformers**, US Patent App. 17,246,352. 2022

- **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 11,194,958. 2021
- R Sinha, V Palanciuc, **P Maneriker**, M Dash, T Mohandoss, D Singal, **Accurate and interpretable rules for user segmentation**, US Patent App. 11,200,501. 2021.
- N Modani, V Subramanian, S Gupta, **P Maneriker**, Utpal, G Hiranandani, A Sinha, **Determining quality of a summary of multimedia content**, US Patent 9,454,524. 2016

SERVICE

- Reviewer: WWW 2020, CODS-COMAD (2021, 2022 PC) AAAI 2021, EMNLP (2021, 2022), ACL 2023, KDD 2023
- Volunteer Organizer: SIGIR 2019
- Peer Mentor (GUIDE) at The Ohio State University (2021)

AWARDS AND ACHIEVEMENTS

- **2023 Graduate Research Award** for thesis proposal from the CSE department at OSU, awarded to 5 PhD candidates across the department.
- **2023 Graduate Poster Award** at the Annual Departmental Poster Exhibition, CSE, OSU, awarded to the top 4 posters out of 44 total.
- **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 22nd among the top 250 teams across India in Amritapuri Regionals.

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.