

NUPOOR GANDHI

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EDUCATION

Carnegie Mellon University

August 2020 - Present

PhD Student, Machine Learning and Public Policy
Pittsburgh, PA

University of Illinois at Urbana-Champaign

August 2016 - May 2020

Bachelor of Science, Computer Science
Minor in Mathematics
Urbana, IL

Senior Thesis: *Feature-Construction with Social Media Data*

PUBLICATIONS

N. Gandhi, A. Morales, S. Chan, D. Albarracin and C. Zhai, **Predicting Opioid Abuse with text-based Twitter Features**, Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence, 2020 (*Student Abstract*)

A. Morales, N. Gandhi, S. Chan, **Multi-Attribute Topic Feature Construction for Social Media-based Prediction**, 2018 IEEE International Conference on Big Data (Big Data), Seattle, WA, USA, 2018, pp. 1073-1078. (*Short Paper*)

RESEARCH

Graduate Research Assistant, CMU Tsvetshop

September 2020 - Present

Carnegie Mellon University

Advisor: Professor Yulia Tsvetkov, Professor Alex Chouldechova

- Adapting end-to-end coreference resolution model for clinical notes from child welfare (Allegheny County DHS) and medical domains
- Developing low-dimensional vector space to capture domain-independent coreference structure of span representation

Research Assistant, Text Information Management Analysis Group

University of Illinois at Urbana-Champaign

August 2016 - Present

Advisors: Professor ChengXiang Zhai, Professor Dolores Albarracin

- Predicted outbreaks of sexually-transmitted infections and opioid mortality rates using LDA topic features using Twitter corpus
- Constructed features to represent regional colloquialisms following geolocation of tweets
- Developed clustering methods for producing interpretable topic-like tweet embeddings

Data Science for Social Good Fellow, Barefoot Law

Imperial College London

June 2019 - August 2019

Advisor: Professor Rayid Ghani, Professor Leid Zejnilovic

- Built an Information Retrieval-based response recommender system to help Barefoot-Law lawyers to reach citizens 60% faster
- Experimented with text-based features to represent citizen questions and lawyer responses

Team Project, d7: Illinois' Data Science Research Collaborative

University of Illinois at Urbana-Champaign

August 2019 - December 2019

Advisor: Professor Wade Fagen-Ulmschneider

- Analyzed 3,000+ C solutions for memory allocation machine problem in System Programming course CS241
- Visualized evolution of malloc implementations and categories of approach

Research Assistant, **Illinois Geometry Lab**
University of Illinois at Urbana-Champaign
Advisor: Professor Sara Clifton

January 2019 - May 2019

- Built an evolutionary dynamics model to understand the conditions under which a bystander effect will emerge

TALKS

Reducing response times to citizen legal questions in Uganda

Lightning Talk at KDD 2020 — Social Impact Session

Oral Presentation at Data Science for Social Good: DataFest 2019

Predicting Opioid Abuse with text-based Twitter Features

Poster Presentation at AAAI Conference on Artificial Intelligence 2020

Natural Selection and the Bystander Effect

Poster Presentation at Undergraduate Research Symposium 2019

Multi-dimensional Features for Prediction with Tweets

Poster Presentation at ACM Tapia Conference 2018

Predicting Sexually Transmitted Infections with Twitter Data

Rapid-Fire talk at Society of Women Engineers Conference 2018

Poster Presentation at Illinois Scholars in Undergraduate Research Expo 2018

WORK

Software Engineering Intern, **Qualcomm**
San Diego, CA

May 2018 - August 2018

- Achieved over 10% reduction in memory consumption for transceiver chip
- Spearheaded development of tool to eliminate redundancies in radiofrequency settings data for 5G modem
- Modeled embedded software with Abstract Syntax Trees to automate optimization of memory layout

Software Engineering Intern, **Synopsys**
Mountain View, CA

May 2017 - August 2017

- Built Machine Learning API to analyze runtime performance of EDA tools
- Developed web-based push notification system for SQL server

OTHER ACTIVITIES

Volunteer Data Scientist, Illinois Legal Aid Online (2020)

President, Society of Women Engineers (2019 - 2020)

External Vice President, Society of Women Engineers (2017 - 2018)

Speech and Debate Team (2015 - 2016)

AWARDS

Knights of St. Patrick, highest award for leadership by College of Engineering 2020

Illinois Scholars Research Grant, awarded to Illinois students for excellence in research 2017

Rapid Fire Research Finalist, awarded at Society of Women Engineers Conference 2018

Outstanding Poster Presentation - Science & Mathematics, awarded at Undergraduate Research Week 2019