

# Samridhi Shree Choudhary

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## Education

### Carnegie Mellon University

Pittsburgh, USA

MASTERS IN LANGUAGE TECHNOLOGIES

August 2016 - August 2018

- Advisor: Carolyn Penstein Rosé
- CGPA: 3.84/4
- Selected Coursework: Intro to Machine Learning, Algorithms for Natural Language Processing, Machine Translation, Computational Discourse Analysis, Deep Learning (ongoing), Machine Learning for Large Datasets (ongoing)

### Vellore Institute of Technology

Vellore, India

BACHELOR OF TECHNOLOGY

May 2008 - June 2012

- Major: Computer Science and Engineering
- CGPA: 9.4/10

## Research Experience

### Language Technologies Institute (CMU)

Pittsburgh, USA

RESEARCH ASSISTANT (ADVISOR: CAROLYN PENSTEIN ROSÉ)

August 2016 - PRESENT

- Currently working on understanding the impact of coordination and developer conversation behaviors on project success in open-source communities on platforms like GitHub.
- Cleaned and visualized huge amount of GitHub data.
- Implemented and executed unsupervised Markov Models over project parameters to identify project activity phases over project timeline.
- Designed and implemented a novel way to quantify developer coordination in GitHub projects (work currently under review).

### Alexa Prize Challenge 2017 (Team - CMUMagnus)

Pittsburgh, USA

OFFICIAL MEMBER (ADVISOR: ALAN BLACK AND CAROLYN PENSTEIN ROSÉ)

November 2016 - August 2017

- Designed and implemented retrieval-based models for opinion-mining and finite-state models for dialog strategies for a multi-turn conversational agent.

## Professional Experience

### Microsoft

Hyderabad, India

SOFTWARE ENGINEER (CLOUD DATA AND APPLICATION PROTECTION)

June 2012 - March 2016

- Worked on the design, implementation and testing of major replication features of standalone and clustered virtual machines for enterprise servers.
- Designed and implemented automated Functional and UI Component Test Library, used by entire team.
- Mentored interns and new-recruits for independently owned modules.

### Microsoft

Hyderabad, India

SOFTWARE ENGINEERING INTERN (WINDOWS SERVICEABILITY)

May 2011 - July 2011

- Built an automated fuzzing system that was used to fuzz the DNS Cache Interfaces of Windows Server and Client OS.

## Technical Skills

**Programming Languages** : C/C++ (Intermediate), Python (Intermediate), C# (Intermediate), Java (Beginner), Matlab/Octave (Beginner), R (Beginner)

**Deep Learning Libraries** : PyTorch (Beginner), DyNet (Beginner)

**Database and Indexing Technologies** : MongoDB (Intermediate), Lucene (Beginner)

## Publications

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- Conference Paper** : Samridhi Choudhary, Christopher Bogart, Aaksha Meghawati, Carolyn Rosé, James D. Herbsleb. *Not Just Who But How: Reconsidering Coordination in Open-Source GitHub Projects*. Under Review at the International Conference of Software Engineering, ICSE 2018 Under Review
- Conference Paper** : Shrimai Prabhumoye, Fadi Botros, Khyathi Chandu, Samridhi Choudhary, Esha Keni, Chaitanya Malaviya, Thomas Manzini, Rama Pasumathi, Shivani Poddar, Abhilasha Ravichander, Zhou Yu, Alan Black. *Building CMU Magnus from User Feedback*. In Proceedings AWS re:INVENT, 2017 To Appear in AWS re:INVENT 2017
- Workshop Paper** : Samridhi Choudhary, Shrimai Prabhumoye, Evangelia Spiliopoulou, Christopher Bogart, Carolyn Rose, Alan Black. *Linguistic Markers of Influence in Informal Interactions*. Second Workshop on NLP and Computational Social Science, ACL 2017 Vancouver, Canada
- Workshop Paper** : Elizabeth K. Bowman, Matt Turek, Paul Tunison, Reid Porter, Steve Thomas, Vadas Gintautas, Peter Shargo, Jessica Lin, Qingzhe Li, Yifeng Gao, Xiaosheng Li, Ranjeev Mittu, Carolyn Penstein Rosé, Keith Maki, Chris Bogart, Samridhi Shree Choudhary. *Advanced text and video analytics for proactive decision making*. SPIE Defense+ Security, International Society for Optics and Photonics, 2017 California, USA

## Projects

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- OpinionBot: An Intelligent Conversational Agent for Opinion Mining** LTI, CMU  
ADVISOR: ALAN BLACK AND ALEXANDER I. RUDNICKY January 2017 - May 2017
- Scraped, cleaned and annotated the Washington Post Corpus with sentiment for opinion formulation.
  - Implemented a retrieval model with *MMR Reranking* to fetch diverse opinions for a given query that were summarized into a coherent answer using *Extractive Summarization* with *TextRank*.
  - Deployed the system as an Alexa Skill.
- Understanding Structure in Open-Domain Dialog** LTI, CMU  
ADVISOR: GRAHAM NEUBIG AND ALAN BLACK January 2017 - May 2017
- Implemented a sequence-to-sequence model with attention to understand the inherent structure of dialog responses for the Ubuntu Dialog Corpus.
  - Defined the structure of a response by converting the dialogs into templates using their parse trees annotations that were learned using the encoder-decoder model.
- Linguistic Markers of Influence in Informal Interactions** LTI, CMU  
ADVISOR: CAROLYN PENSTEIN ROSÉ AND ALAN BLACK January 2017 - May 2017
- Scraped and studied user posts from a social media platform to understand the effect of language on the influence of the post.
  - Operationalized influence and annotated the posts accordingly, engineered indicative linguistic features for the content of the posts and ran regression models to study the improvement in classification of influential and non-influential posts.
  - Work published in ACL workshop, *NLP+CSS: Workshops on Natural Language Processing and Computational Social Science*.

## Honors & Awards

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- 2016-2018 Carnegie Mellon University, USA
- Graduate Research Fellowship** - Covers tuition, fees, conference travel and monthly stipend for the entire course duration.
  - AlexaPrize 2017 Research Stipend** - Our team was one of the 12 teams worldwide to be awarded a stipend of \$100,000 to compete in Amazon AlexaPrize.
- 2008-2012 VIT, India
- Outgoing Awards and Gold Medal** - Awarded the *University Gold Medal*, *Best Outgoing Student* and *Ishan Goel Endowment Award* for excellent performance in Computer Science for my undergraduate course.
  - Annual University Scholarship** - Awarded university scholarship for securing Rank 1 in the Computer Science department each year through the 4-year course.