

# Sumeet Kulkarni

sumeetk.321@gmail.com ❖ (408) 221-9832 ❖ San Jose, CA

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## EDUCATION

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### University of Illinois at Urbana-Champaign

*B.S., Mathematics and Computer Science*

▪ College of Liberal Arts and Sciences James Scholar

▪ GPA: 4.0/4.0

▪ Relevant Courses: Data Structures, Numerical Methods, Linear Algebra, Graph Theory, Algorithms and Models of Computation

**Graduation Date (Expected): May 2024**

*Champaign, IL*

## WORK EXPERIENCE

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### AbbVie, Inc.

*Data Science Intern*

▪ Fine-tune large generative GPT-J models on clinical study report and manuscript text data for text summarization to save scientists time writing summaries of extensive research studies

▪ Deploy models on Cerebras CS-2 cluster with help of Cerebras and National Center for Supercomputing Applications at UIUC

▪ Perform inference on clinical study reports via Python, TensorFlow, HuggingFace libraries

**May 2022 – Present**

*Champaign, IL*

### smartQED, Inc.

*Intern*

▪ Allowed users to interact with smartQED API from outside the webapp by building a Java Slack Bot and developing slash command functionality under Agile framework

▪ Filmed tutorial videos for beginner users to learn how to use smartQED's product

**May 2020 – August 2020**

*San Mateo, CA*

## RESEARCH EXPERIENCE

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### University of Illinois at Urbana-Champaign School of Information Sciences

*Undergraduate Research Assistant; Advisor: Dr. Jana Diesner*

▪ Construct relational networks for first responders by utilizing NLP libraries Flair, SpaCy, for entity extraction on unstructured text data from four major hurricane events

▪ Analyze network structures and similarity between networks using graph theory techniques, Python, Pandas

▪ Compare our method with other state-of-the-art relation extraction methods (OpenIE, OneIE)

**February 2022 – Present**

*Champaign, IL*

## PUBLICATIONS

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Dinh, L., Kulkarni, S., Yang, P., & Diesner, J. (2022). Reliability of Methods for Extracting Collaboration Networks from Crisis-related Situational Reports and Tweets. Proceedings of Information Systems for Crisis Response and Management (ISCRAM).

## ACTIVITIES

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### Association for Computing Machinery @ UIUC

*Executive Board Member*

▪ Co-chair of Special Interest Group for Natural Language Learning (SIGNLL)

▪ Conduct technical workshops, organize research talks, coordinate projects in field of natural language processing

▪ Engage with and encourage student members to explore NLP subfields

**January 2022 – Present**

*Champaign, IL*

## PROJECTS

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### EntiTweet

- Designed, deployed a Flask app/research tool that creates visualizations of Twitter co-occurrence networks using SpaCy, NetworkX, and PyVis

### KPN4J

- Formulated a Java framework/library for easy implementation of Kahn Process Networks

## AWARDS

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▪ 2x American Computer Science League 1<sup>st</sup> Place Western Region – 2018, 2020

▪ American Computer Science League International All-Star Contest 2<sup>nd</sup> Place - 2018

## SKILLS

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Java; Python; C++; Keras; NLP; Algorithms; Data Science; Agile; Flair; SpaCy; GPT