

ANURAG ILLENDULA

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SUMMARY

- Pre Final Year undergraduate student at IIT Kharagpur, having experience in the fields of Natural Language Processing, Machine Learning, Information Retrieval and Data Mining.
- Worked on various projects involving social media data and Wikipedia text.
- Looking for industrial internships for Summer 2019 which would give me real life applications of my research.

EDUCATION

2015-2020 Integrated Master of Science in [MATHEMATICS AND COMPUTING](#)
[Indian Institute Of Technology, Kharagpur](#), India
GPA: 7.98/10

RESEARCH INTERESTS

Social Media – Applications of Social Media Data on Identification of Mental Health, Harassment and Sarcasm

Knowledge Graphs – Information Retrieval from Knowledge Graphs and Real-time Dynamic Knowledge Graph creation from unstructured text

Emoji Understanding – Text Summarization Using Emoji, Emoji Similarity, Multimodal Emoji Prediction and Sense Disambiguation

Other – Natural Language Processing, Machine Learning, Deep Learning, and Information Retrieval

SKILLS AND EXPERTISE

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|----------------------------------|----------------------------------|
| PROGRAMMING LANGUAGES: | PYTHON, C, JAVA |
| PROGRAMMING TOOLS: | TENSORFLOW, KERAS, SCIKIT-LEARN |
| SCRIPTING AND MARK-UP LANGUAGES: | HTML, PHP, RESTful Web Services |
| OPERATING SYSTEMS: | WINDOWS, LINUX |
| SEMANTIC WEB TECHNOLOGIES: | RDF, SPARQL |
| DATABASES: | MONGODB, MYSQL |
| APPLICATION SERVERS: | APACHE TOMCAT, LAMP |
| DATA CRAWLING TOOLS: | SELENIUM, BEAUTIFUL SOUP, SCRAPY |

WORK EXPERIENCE

Research Intern at [KNO.E.SIS Center](#) ADVISOR : [AMIT P. SHETH](#) (May - July 2018)

- Worked on various research projects involving creation of domain-specific dynamic knowledge graphs, relationship extraction from real-time social data stream of granular events like Elections and major social issues such as harassment.
- Also worked on building machine learning models to detect the temporal validity of facts by using existing knowledge from large knowledge graphs.
- **Programming Tools** : Topic Modelling, Gensim, Keras Scikit-Learn, RDF, SPARQL

Research Intern at [KNO.E.SIS Center](#) ADVISOR : [AMIT P. SHETH](#) (May-Jul 2017)

- Worked on research projects involving text summarization using emoji, emoji prediction, emoji sense disambiguation, sarcasm detection using emoji, and building EmojiNet-RDF dataset.
- Explored natural language processing, semantic web, and machine learning techniques in solving the above problems.
- **Programming Tools** : Keras, Tensorflow, Scikit-Learn, RDF, SPARQL, RestAPI, MySQL, PHP

Data Engineer at [MAROON.AI](#), Noida

(Jan-Feb 2017)

- Work conducted included extracting useful insights from the company's blogs and applying sentiment analysis tools to find the growth of the company.
- Created a graph database for efficient storage of sentiment analysis information.
- Experienced with Amazon Web Services including *EC2*, *S3*, Rekognition, Kinesis.
- **Programming Tools** : Selenium, Scrapy, MongoDB, Neo4j, NLTK, Keras

Data Engineer at [AVIYOS PREDICTIVE INSIGHTS](#), Noida

(Dec-Dec 2016)

- Major duties included data scraping and data mining using natural language processing and machine learning algorithms.
- Created a robust algorithm for automatic summarization of the segments of text extracted from the data scraping programs.
- Experienced with Amazon Web Services including *EC2*, *S3*, Athena.
- **Programming Tools** : BeautifulSoup, Selenium, NLTK, MySQL, MongoDB

PUBLICATIONS

[1] Learning Emoji Embeddings using Emoji Co-Occurrence Network Graph, **Anurag Illendula**, Manish Reddy Yeddula, At the 1st **International Workshop for Emoji Understanding** co-located with ICWSM-2018. [[ArXiv](#)] [[Code](#)] [[Slides](#)]

[2] Which Emoji Talks Best for My Picture?., **Anurag Illendula**, KV Manohar, Manish Reddy Yedulla., At the 2018 IEEE/WIC/ACM International Conference on **Web Intelligence (WI '18)**, Santiago de Chile. [[ArXiv](#)]

[3] "What's ur type?" Contextualized Classification of User Types in Marijuana-related Communication using Compositional Multiview Embedding., Ugur K, Manas G, Usha L, **Anurag I**, Prasad TK, Raminta D, Sheth A, At the 2018 IEEE/WIC/ACM International Conference on **Web Intelligence (WI '18)**, Santiago de Chile [[ArXiv](#)]

[4] Want to know your 1000 years time capsule?., Padhee S, **Anurag I**, Kapanipathi P, Lalithsena S, Prasad TK, Sheth A (Manuscript in Preparation AAAI 2019).

[5] Domain-specific Real-time Dynamic Knowledge Graph Creation., Padhee S, **Anurag I**, Lalithsena S, Prasad TK, Sheth A (Manuscript in Preparation WWW 2019)

[6] Emoji Ontology: A Framework to Publish Emoji as Structured Data., Sanjaya Wijeratne, **Anurag Illendula**, Lakshika Balasuriya, Amit Sheth, Derek Doran (Manuscript in Preparation).

[7] Emoji Sense Disambiguation., Sanjaya Wijeratne, Lakshika Balasuriya, Amit Sheth, Derek Doran, **Anurag Illendula** (Manuscript in Preparation).

ACADEMIC PROJECTS

API for Market Analysis

(JAN. 2017 - JUL. 2017)

Course Project: **Soft Computing Tools in Engineering**

Advisor: [Prof. Sudhir Kumar Barai](#)

- Trained an artificial neural network and a regression model for prediction of future stock price.
- Trained a deep learning model to predict the sentiment of investor comments (using [Stocktwits API](#)) and collected historical closing stock prices using [Yahoo Finance API](#).
- Used PCA and T-SNE algorithms for dimensionality reduction, K-Clustering and DBSCAN algorithms to cluster the industries which have similar growth.
- **Programming Tools Used** : SCIKIT-LEARN, KERAS, NUMPY, NLTK

Text Summarization Using Emoji

(MAY. 2017 - JUL. 2017)

Project as part of Internship

Advisor : [Amit P. Sheth](#)

- Developed a web application which summarizes a given sentence to a series of emoji's which convey same meaning.
- Used FastText trained word embedding's and knowledge from Emojinet.

SCHOLARSHIPS AND CERTIFICATES

- Secured a ALL INDIA RANK-10 in [SOUTH INDIAN MATHS OLYMPIAD](#).
- Secured a SILVER MEDAL in OPEN IIT MATHS OLYMPIAD-2015 in which more than 100 teams participated.
- Secured a ALL INDIA RANK-939 in [KVPY](#) Conducted By [IISc Bangalore](#)