

# SETU DURGESH VINAY ANNAM

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## EDUCATION

### MASTER OF SCIENCE IN COMPUTER SCIENCE

ARIZONA STATE UNIVERSITY | Tempe, Arizona, USA

May 2021

**GPA: 4.11/4**

### BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE

BML MUNJAL UNIVERSITY | Gurgaon, Haryana, India

May 2019

**GPA: 8.93/10**

- 100% Scholarship on Tuition and Living.

## TECHNICAL KNOWLEDGE

- **Programming Languages:** Python, Java, C, C++, Javascript, Swift, Bash, Clingo (ASP)
- **Database:** MySQL, SQLite, MongoDB, Firestore
- **Web Frontend Dev:** VueJS, ReactJS, Firebase, HTML5, CSS, JSON, AJAX, JQuery
- **Web Backend Dev:** Node JS, Django, PHP, REST, SOAP, MVC
- **IOS / Android Dev:** Xcode, Android Studio
- **ML / DL / NLP / CV / BD / KRR:** Numpy, Scikit, Keras, NLTK, Spacy, Skimage, Matplotlib, Tensorflow, Hadoop, Gensim, Protégé
- **Miscellaneous:** Data Structures, Algorithms, Blockchain, Software Security, Sketch, Arduino, XML

## WORK EXPERIENCE

### GRADUATE SERVICE ASSISTANT | ARIZONA STATE UNIVERSITY

August 2019 - December 2019

Tempe, Arizona, USA

- Working part-time as a Grader / TA for CSE 335: Principles of Mobile Application Dev (iOS).

## INTERNSHIP EXPERIENCE

### NLP RESEARCH INTERN | IIIT HYDERABAD

January 2019 - May 2019

Hyderabad, Telangana, India

- Conducted research under Professor Radhika Mamidi by the title “**Anaphora Resolution for Telugu Dialogues**”.
- Applied deep learning and achieved a state of the art for pronominal anaphora resolution in Telugu dialogue systems.
- Paper submitted to the 6<sup>th</sup> International Conference on Natural Language Processing (ICON-2019). | **Under Review**

### SOFTWARE DEVELOPER | TECH MAHINDRA

June 2017 - July 2017

Bangalore, Karnataka, India

- Developed a full stack web and android visualization applications to track the issues occurred in the company's core software.

## ACHIEVEMENTS

### FINAL CTF | SOFTWARE SECURITY | ASU, TEMPE, ARIZONA, USA

December 2019

- Secured 3<sup>rd</sup> position in the final 'Capture the Flag' event conducted at ASU under the course Software Security (CSE545).

### SYSTEM FOR REDUCING DATA DUPLICATION | PATENT | GURGAON, HARYANA, INDIA

May 2019

**OTHER INVENTORS :** Pagidi Arunswara Reddy, Tamanna Sehgal

### HACKBMU | HACKATHON | GURGAON, HARYANA, INDIA

April 2018

**TECHNOLOGIES USED :** Node JS, Computer Vision, CNN

- Secured 2<sup>nd</sup> position for building an app that labels the American Sign Language hand gestures using CNN.
- The labels are used to generate dialogues, translated to native languages and converted to speech.

### ACM - ICPC 2017 | AMRITAPURI, KERALA, INDIA

December 2017

- Participated in ACM-ICPC Asia Amritapuri Onsite Regionals 2017.

### TEDxBMU | HEAD WEB DESIGNER | GURGAON, HARYANA, INDIA

November 2016 - January 2017

- Led a team of web designers and created a spectacular website for TedX event conducted at the university.

## PROJECTS

### INSURANCE REFEREE ASSIGNMENT | KNOWLEDGE REPRESENTATION AND REASONING

September 2019 - Dec 2019

**TECHNOLOGIES USED:** Clingo, Answer Set Programming (ASP)

- Developed a clingo program that assigns referee to a task based on some weak and hard constraints set by the company.
- Used minimization technique to optimize the total payments made by the company given the preferences of the referees.
- Explored several aspects of ASP and declarative programming in tackling constraint related problems with little planning.

### COREFERENCE ANNOTATOR | NLP TOOL

February 2019 - June 2019

**TECHNOLOGIES USED:** Python, Tensorflow, Keras, Gensim, Dialogue Systems, Node Js, Vuetify, Vue JS

- Developed software that annotates the anaphora of a noun phrase in the human spoken dialogues.
- Achieved a state of the art working annotator and decoder for the Telugu language.
- Used Gensim to generate word embedding and appended extra features as our research suggested.

### CODE REEVE | ONLINE JUDGE SOFTWARE

August 2018 - November 2018

**TECHNOLOGIES USED:** Node Js, MongoDB, MOSS

- Developed software which automatically judges the coding assignments based on the test cases provided.
- Analyzed potential exploits in the existing systems and rectified them in the application.
- Used MOSS API, which calculates the similarity of the code to detect plagiarism.

### CHANDLER CHATBOT | NLP, AI

July 2018 - Present

**TECHNOLOGIES USED:** CNN, LSTM

- Working on a chatbot that mimics Chandler, a famous television fictional character from Friends, who was sarcastic.
- Analyzing several styles of response and reasoning in humans and training AI.

### BMU BLOCKCHAIN | CRYPTOCURRENCY

January 2018 - April 2018

- Developed a real-time blockchain application which has a server module for transactions and a CLI for the miners.
- Made the blocks secured by the decentralization of transactions using peer to peer networks and proof of work.