

# Bapiraju Vamsi Tadikonda

SOFTWARE ENGINEER

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## Education

### North Carolina State University

Raleigh, NC

MASTER OF COMPUTER SCIENCE, GPA: 4.0/4.0

Aug. 2021 - Present

- Parallel Systems, Neural Networks, Algorithms for Business Intelligence, Design & Analysis of Algorithms, Automated Learning & Data Analysis, Database Systems

### BITS Pilani

Pilani, India

BACHELOR OF ENGINEERING, COMPUTER SCIENCE, GPA: 8.38/10

Aug. 2013 - May. 2017

- Relevant Coursework**- Data Structures, Algorithms, Database Systems, Data Mining, Artificial Intelligence, Operating Systems

## Skills

**Languages** Python, Java, C, C++, HTML, CSS, SQL JavaScript

**Software Frameworks & Libraries** Flask, Pandas, Keras, NumPy, NLTK, Selenium, Open MPI, CUDA

**Technologies** AWS, Docker, Kafka, REST, NGINX, Tableau, Spark, Hadoop, MapReduce

**Databases & Dev Tools** PostgreSQL, KDB, MongoDB, GIT, Pycharm, IntelliJ, Maven, Jenkins, Linux

## Work Experience

### JPMorgan Chase &Co.

Bangalore, India

#### SENIOR SOFTWARE ENGINEER

Jan. 2021 - Aug. 2021

- REST API Development** - Conceptualized and implemented a new report service layer, delivering to 20 clients, with **RESTful APIs** for Transaction Cost Analysis (TCA) using Tableau, **Flask** and NGINX.
- Migrated the pricing information data from on-premise servers to **AWS** and have designed APIs to route the queries accordingly.

#### SOFTWARE ENGINEER

Jul. 2017 - Jan. 2021

- Data Pipelines** - Handled Data ingestion of around 16 billion records of trade data every day with Pub-Subs and **Kafka** Streams and stored them into **KDB** (time-series database) and **PostgreSQL**.
- Designed and Developed Backend APIs using **Python** and **Java** to support real-time P&L of SDR products.
- Chat-bots** - Designed a comprehensive framework in **Python**, for building financial chat-bots and real-time trade Notifiers. The chat-bots are currently adopted by 60 global sales and trader chat rooms (with an increase of 200% YoY).
- Designed and developed an optimal near real-time data extraction framework using indexes to minimize trade reconciliations from hourly to daily.

### Web Intelligence & Social Computing Lab, BITS Pilani

Pilani, India

#### RESEARCH ASSISTANT

Aug. 2016 - May. 2017

- Language Identification** - Improved the F-Measure of the previous language Identification System by 17% for multi-lingual sentences thereby identifying places for code-switches.
- Sentiment Analysis** - Created SentiWordNet dictionaries for 13 Indian languages, which have the information of both the polarity scores along with the Part of Speech (POS) tag. Applied Sentiment Analysis for multi-lingual code-mixed sentences with SentiWordNets.
- NER Tagger** - Designed Named Entity Recognizers (NER) in Python, with an accuracy of 97%, for code-mixed Indian languages using Conditional Random Fields (CRF), Random Forests and Neural Networks. The work was published **here**

### IBM

Bangalore, India

#### SOFTWARE ENGINEER INTERN

May. 2015 - Jul. 2015

- Designed a payload attribute validator with **Java** and Selenium. The validator increased the test coverage for the product Maas360 by 5%.
- Automated the end-to-end testing of registration and access control management on Maas360 for an iOS device using **Java** and Eggplant. The tests reduced the manual intervention by around 70%.

## Projects

### Question Answering System

#### INFORMATIONAL RETRIEVAL

- Developed a mini system that can answer "W" questions. Potential answers from top HTML web documents were scored based on similarity matching (using Levenshtein distance). The system was developed with Python and NLTK.