

Bapiraju Vamsi Tadikonda

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EDUCATION

North Carolina State University || Master of Computer Science || Computer Science Aug 2021 – May 2023

Courses: Automated Learning and Data Analysis, Design & Analysis of Algorithms, Database Management Systems

Birla Institute of Technology & Science, Pilani || Bachelor of Engineering || Computer Science Aug 2013 – May 2017

Courses: Computer Networks, Operating Systems, Data Structures, Algorithms, Database Systems GPA:8.38/10

Data Mining, Artificial Intelligence, Image Processing

SKILLS

Languages: Python, C, C++, Java, HTML, CSS, JavaScript

Databases and Operating Systems: MySQL, KDB, Linux, Windows, Ubuntu, MacOS

Tools/Frameworks: GIT, SVN, JIRA, REST API's, Selenium, PyCharm, Visual Studio, Jenkins, Docker, Cloud Platforms (AWS), Flask, Kafka, Scikit-learn, Keras, Pandas, NumPy, NLTK, OpenCV

Certifications: Deep Learning Specialization by Coursera Jan 2020

WORK EXPERIENCE

Senior Software Engineer, JPMorgan Chase & Co, Bangalore, India Jan 2021 – Aug 2021

- REST API Development - Conceptualized and implemented a new report system, delivering to 20 clients, with RESTful APIs for Transaction Cost Analysis (TCA) using Tableau, Flask and NGINX.

Software Engineer, JPMorgan Chase & Co, Bangalore, India Jul 2017 – Dec 2020

- Data Pipelines - Handled Data ingestion of around 16 billion records of trade data every day with **Python** and stored them into a time-series database (**KDB**) along with 2 other teammates.
- 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 in 200% YoY).
- Python3 Migration – Upgraded 70% (around 2000 scripts) of the code base to python 3.5. Redesigned key libraries to have better performance and maintainability.

Research Assistant, Web Intelligence & Social Computing Lab, Pilani, India 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](#).
- Software Engineer Intern**, IBM, Bangalore, India May 2015 – Jul 2015
- Desktop Management Automation - Designed a payload attribute validator with Java and Selenium. The validator increased the test coverage for the product Maas360 by 5%.
- Automation Scripts for iOS Devices - 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

Song Sequential Skip Prediction (Machine Learning) Ongoing

- Performed exploratory data analysis on the Music Streaming Sessions Dataset released as part of WSDM Cup.
- Applied Machine Learning classification models (random forest, SVM) to achieve an initial accuracy of 70%.

Toy Compiler (Compiler Construction)

- Designed a Basic Compiler with the following components: a lexer, LL (1) parser, AST tree generator, semantic analyzer, type checker and an intermediate code generator. The compiler was coded in C programming language.

Question Answering System (Artificial Intelligence)

- 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.

EXTRACURRICULARS

- Hackathons - Secured 4th position (out of 700 teams in India) for our project, Smart HR Assistant at JPMC's Annual Hackathon. The HR assistant would perform resume shortlisting, interview scheduling, and other menial tasks.
- Volunteering - Volunteered for 3 years at Nirmaan, tutoring underprivileged primary school kids in mathematics and science.