TIRUPAL RAO RAVILLA

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SUMMARY

Dynamic and creative software developer with over 4 years of industrial experience in product development, producing robust code for high-volume companies, developing web applications, focusing on conversational AI and text analytics; and excelling at an array of skills from back-end development, full stack development, data science to integrations, builds and deployments for multiple projects.

EDUCATION

New York University, Tandon School of Engg, N| **Jawaharlal Nehru Technological University, AP, INDIA**
Master of Science in **Computer Science | 3.7** GP| *B. Tech* in **Computer Science & Engg.** | 72% (96th percentile) **|** 05/2012

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, SQL │ **Backend**: REST, J2EE, JMS │ **Databases**: MongoDB, MySQL, OrientDB
Web Technologies: AngularJS, VueJS, HTML5/CSS, jQuery | **Project Tools:** Git, SVN, Eclipse, VSCode, Gradle, Maven, JIRA, Docker,
Other Frameworks & Tools: Apache Tomcat, Apache Http, Flask, Django, NuxtJS, Scikit, Keras, TensorFlow, Jupyter, UIMA, CRFSuite, OpenNLP, NLTK, OpenDial, StoryBlock | **Data Science:** Data Engg., traditional ML, Deep Learning (CNN, RNN, LSTM)
Cloud: AWS (S3, Cognito, Lambda, EC2, Elasticsearch, Rekognition, Kinesis, Lex etc.), Azure, GCP

WORK EXPERIENCE

Oracle America, United States   *Role: Software Development Engineer 2*   **|** 10/2020 – Present

Project: various / Team: Network Management Tooling (Network Automation at OCI)

- Developed/coded for various applications and tools used for managing Oracle Cloud Infrastructure (OCI) networks, as part of the Network Automation roadmap
- Maintained the existing applications and performed deployments of different applications to various large-scale regions of the Oracle cloud network, and worked towards scaring the networks further, and improve the processes

NEW YORK UNIVERSITY, New York NY **|** *Title: Graduate Teaching Assistant (For: **DevOps** course)*   **|** 01/2019 – 05/2020

- Lead an open source Course Builder website project as part of a DevOps guided studies program (CourseBuilder)
- Lead DevOps student teams on a Newsletter project for NYC Department of Records, an agent-based modeling system - indras-net

EFF CREATIVE GROUP, New York NY   *Title: Full Stack Development Intern*   **|** 06/2019 – 08/2019

Projects: WeSearchWatches and TickerTocker

- Developed APIs, UI, and added AWS Cognito, Route53, CloudFront for *WeSearchWatches* – a comparison website for luxury watches
- Added widgets and custom features to the UI of *TickerTocker* - a trading productivity platform

ACCENTURE SOLUTIONS PRIVATE LIMITED, Bangalore, India   *Role: Software R&D Engineer Lead*   **|** 05/2015 – 07/2018

Project: ATL - RHEA Conversational AI and RHEA Smart Entertainment

Highlights and Achievements	Roles and Responsibilities
• **Improved scalability & performance(by~70%)** by wrapping modules into **microservices** and parallelizing the service calls • **Reduced processing time by ~75%** by restructuring code/logic • Designed databases and backend system for a chatbot platform • Lead a dev team to successfully deliver multiple pilots projects • Published a research paper on Critiquing based Dialog System, and filed two patents: 'Interactive Content Recommender' and 'Spoken Language Understanding (SLU) system' as a co-inventor	- Senior Software Engineer (lead) in a team of ten focusing on Java and python - based backend development, to build virtual agents - Designed and setup MongoDB and MySQL databases - Built a Java based Dialog Mgmt. module (with OpenDial and Java), SLU system (with ML/NLP, Python) - Built REST services for those in Java (Jersey) and Python (Flask) - Managed integrations, builds and deployments (Maven/Gradle)

Project: ATL - Savant: Testing Virtual Agent *Title: Software Engineering Analyst; Role: R&D Sr Engineer*

- Broke down complex project structure into simpler modules and designed a robust and light-weight backend system
- Quickly learnt JMS, AngularJS, JBoss Drools to build a web-app
- Successfully demonstrated work to clients and received awards

- SE in a team of ten to build multi-virtual agent desktop platform
- Customized Java-based NLP modules, and built an Alerts and recommendations system using JMS and AngularJS
- Designed and managed MongoDB and MySQL databases

Project: ATL - HR Recruitment Advisory *Title: Software Engineering Analyst*

- Software Engineer(R&D) in a team of six to build a Resume processing, matching, and ranking research project
- Developed NLP based custom components to process unstructured text in Resumes and JDs; also managed builds and deployments

COGNIZANT TECHNOLOGY SOLUTIONS, Chennai, India. *Title: Programmer Analyst* | **Project: SeeBeyond Conversion** |

04/2013 − 02/2014

- Learnt SOAP and REST webservices, followed Agile development and finished the project earlier than scheduled

- Developer in a team of eight to develop REST services for a commercial insurance client portal replacing legacy JMS system

ACADEMIC WORK / PROJECTS

- Temporal Orientation : A scheme and Corpus for Classifying Temporal Orientation in Political Speech ([temporal-orientation](#))
  - NLU Research project on **analyzing future and past temporal orientation, using Bi-RNNs, BiLSTMs**, and SVM.
- Classification of **toxicity in civil comments using BiLSTMs** and **stacked traditional ML** models ([Comment_Toxicity](#))
  - ML and Big Data project to train models on 1.8 million sentences, primarily using python, Keras, TensorFlow, and pySpark.
- AWS cloud projects: 1. Virtual Assistant for Meetups [Meetup Assistant](#) 2. Smart door simulation([smart-door](#)), 3. Private Album Search ([Photo-Search](#)), 4. Dining ChatSSbot([DiningBot](#)).
- A Data Engg. project to analyze the economic impact of COVID-19 using stock market and unemployment data ([covid-19-analysis](#))
- Grad Courses: **Algorithms, Cloud Computing, AI, Machine Learning, Natural Language Understanding, Computer Vision, Big Data.**

AWARDS & ACCOMPLISHMENTS

- Got an ACE (Accenture Celebrates Excellence) award, three Accenture Labs Sunshine awards, for innovation & exemplary contributions
- Published a research paper at NLDB 2018 and filed three patents over-all related to conversational AI research as co-inventor.
- Been the Class Representative (CR) in the last four semesters of undergrad; and placement coordinator for a class of 60 students.