

Varun Totakura

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Professional Summary

Passionate Software Developer with 2 years' experience in the ServiceNow Platform. Enthusiast in Machine Learning and Data Science, skilled in designing & developing ML/Active Learning algorithms from scratch and experienced in research as a Research Assistant for 2 years while pursuing Master's. Excited to contribute to cutting-edge projects and drive innovation. Excellent team player with strong interpersonal skills deemed to achieve project objectives with efficiency and effectiveness.

Education

Florida State University, Tallahassee, Florida, United States

Master of Science in Computer Science; CGPA: 3.61 / 4.0

August 2024

Jawaharlal Nehru Technological University – Guru Nanak Institutions, Telangana, India

Bachelor of Technology in Computer Science & Engineering; CGPA: 8.91 / 10.0

September 2020

Technical Skills

- Programming Languages: Python, C, C++, Java, JavaScript, Go Lang, R
- Platforms: Apache Kafka, Apache Airflow, Alteryx, Qlik, Power BI, Tableau
- Python Modules: PyTorch, TensorFlow, OpenCV, Matplotlib, Scikit-learn, PyAutoGUI, LXML, BeautifulSoup, Selenium
- Databases: MySQL, NoSQL, Snowflake Warehouse
- Operating Systems and Clouds: Windows, Linux; ServiceNow, Google Cloud, Microsoft Azure
- Scripting Languages: HTML, CSS, JavaScript, PHP
- Tools: Microsoft Power Automate, Google Colab, Spyder, Visual Studio, R Studio

Professional Experience

Graduate Research Assistant, Florida State University, Tallahassee, FL

August 2022 – Present

- Collaborated with esteemed researchers and professors Dr. Shayok Chakraborty, Dr. Sonia Haiduc - Serene Lab, Dr. Walter Richard Boot, and Dr. Neil Charness.
- Analyzed the behavior of elderly individuals affected by Alzheimer's Disease in collaboration with Florida State University's Psychology Department and Cornell University's Weill Cornell Medicine. Devised an innovative architecture combining TCN, CNN, and GRU in a Domain Adaptation technique to enhance performance.
- Leverage Deep Learning techniques to predict model correctness, by working across approximately 10 diverse datasets totaling over 300,000 records.
- Engaged in Active Learning with Imperfect Oracles, particularly focusing on text data. Implemented the code in an optimized fashion, leveraging parallel computing techniques to achieve a remarkable 24-fold reduction in execution time from 8 hours to just 20 minutes.
- Designed a Natural Language Processing solution for Bug Localization. Processed over 150,000 text records gathered from various sources such as Twitter, Reddit, and Slack, utilizing BERT for summarization and precise bug identification within code snippets.

Systems Engineer, Tata Consultancy Services, Hyderabad, India

July 2020 – July 2022

- Worked as a Developer in a ServiceNow project and led the development of Chatbots using ML and Azure.
- Played a key role in a migration project, automating integration for Incident, Problem, Change Catalog, Story, and other processes. This initiative significantly reduced idle time by over 45%.
- Contributed to the project's R&D endeavors by identifying areas ripe for automated workflows, resulting in solutions that enhanced task efficiency by an impressive factor of 20.
- Received nine awards in recognition of exceptional performance, including the prestigious "Learning Achievement Award" for mastery of cutting-edge technologies such as ServiceNow, Power Automate, Azure, and Google Cloud.
- Served as a peer leader, monitoring team performance and implementing strategies that boosted individual performance by more than fivefold.

Research Publications

- Active Learning with Imperfect Oracles using Text Data. *2024
- Predicting Error Patterns in Deep Neural Networks using the Meta Model Data. *2024
- Analysing the behavioural patterns in elderly people suffering with Alzheimer's Disease. *2024
- Prediction of Transmittable Diseases Rate in a Location Using ARIMA and GARCH. 2021
- Improved Safety of Self-Driving Car using Voice Recognition through CNN. 2021
- Prediction of Animal Vocal Emotions using Convolutional Neural Network. 2020
- Prediction of Stock Trend for Swing Trades using Long Short-Term Memory Neural Network Model. 2020
- An Integrated Approach to Sentiment Analysis using Machine Learning Algorithms. 2020
- Published another 5 research papers and survey papers. 2019 - 2020

Previous Projects

Chatbots and Automations - Tata Consultancy Services

September 2021 – July 2022

- Developed intelligent Chatbots to streamline operations and enhance user interactions.
- Designed machine learning-driven automations to enhance productivity.
- Contributed to the project's research and development initiatives by identifying opportunities for automated workflows, leading to solutions that boosted task efficiency by a remarkable factor of 20.
- Tools: Python, Azure, ServiceNow, REST Protocol.

ServiceNow Integrations - Tata Consultancy Services

August 2020 – July 2022

- Integrated ServiceNow with external tools using REST and Email.
- Played a pivotal role in a migration project, automating integration for Incident, Problem, Change Catalog, Story, and other critical processes. This automation resulted in a remarkable reduction of idle time by over 45%.
- Ensured seamless data flow across different ServiceNow instances, as well as between ServiceNow and Workday, facilitating efficient operations.
- Tools: ServiceNow, RESTful Protocol, SOAP, Email.

Internships

Cyber Smart Intern, Hyderabad City Police, Hyderabad, India

September 2019 – October 2019

- Cyber Smart Student Intern at Hyderabad City Police under the guidance and trained by Mr. Rakshit Tandon.
- Worked on enhancing the performance of facial recognition using Google Cloud Vision AI.
- Explored the nefarious world of phishing, unraveling the intricate web of deception and deceit.

Software Developer Intern, Johan Brown Pvt Ltd, Hyderabad, India

October 2016 – April 2017

- Developed a diverse range of applications in Python, C, C++, and Java.
- Ventured into data analysis and visualization, wielding powerful tools like Alteryx, Qlik, and Tableau.
- Delved deep into the data, extracting valuable insights and facilitating informed decision-making processes.
- Embraced the power of web scraping and machine learning, implementing algorithms and automation scripts using Scikit-learn, PyAutoGUI, LXML, BeautifulSoup, and Selenium.

Awards and Achievements

- Three times Star of the Month, Tata Consultancy Services. 2021 - 2022
- Five times On the Spot Awards, Tata Consultancy Services. 2021 - 2022
- Learning Achievement Award, Tata Consultancy Services. 2021 - 2022
- Ranked 2nd Topper in Academics, Guru Nanak Institutions. 2019

Certifications and Trainings

- Completed Deep Learning Specialization taught by Andrew Ng and other instructors. 2020
- Completed altogether 10 Coursera courses on Machine Learning, Customer Analytics and more. 2020
- Ethical Hacking, IOT, and Web Development training by Imparta. June 2019