VARUN TOTAKURA

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EDUCATIONAL QUALIFICATION:

Degree/Certificate	Grade Obtained	Name of the College/ School	University/Board	Place	Year
MS in Computer Science	3.54	Florida State University	Florida State University	Tallahassee, Florida	2024*
B. Tech (Computer Science)	8.91	Guru Nanak Institutions Technical Campus	JNTU – Hyderabad	Hyderabad, India	2020
12^{th}	91.4%	Narayana Junior College	BIE-TS	Hyderabad, India	2016
10^{th}	9.2	Narayana Concept School	SSC	Hyderabad, India	2014

PROFESSIONAL EXPERIENCE:

Graduate Research Assistant – Dr. Shayok Chakraborty, Florida State University – August 19, 2022 to Present:

- Working on development of a solution to study and early detect Alzheimer's Disease in aged/elderly people in association with FSU Psychology Department and Weill Cornell Medicine Department.
- Working on Predicting Deep Learning Model Correctness.

Graduate Research Assistant – Dr. Sonia Haiduc, The Serene Lab, Florida State University – August 15, 2022 to December 16, 2022:

- Worked on development of a Natural Language Processing Solution for Bug Localization.

System Engineer – Tata Consultancy Services, Hyderabad, Telangana – 23rd July 2020 to 22nd July 2022:

- Worked as ServiceNow Developer.
- Worked on development automations and integrations in ServiceNow.
- Part of the R&D Program which is a special initiative to identify and automate the routine tasks.
- Developed Chat-bots and some automations as a part of R&D and became a team leader for the group of people who are in R&D.
- For my quick learning and adapting skills, I was awarded with "Learning Achievement Award". I have learned lot of technologies like ServiceNow, SharePoint, Power Automate, Azure, Google during my work.

ACADEMIC & PROFESSIONAL PROJECTS:

Developments of Intelligent Chatbots and Automations using Machine Learning – R&D - September 2021 **–** July 2022:

- **Organization:** Tata Consultancy Services
- **Description:** To Develop Intelligent Chatbots which can do necessary operations by itself by getting inputs from the user and to develop necessary automations using Machine Learning to reduce manpower
- **Outcome:** Increase productivity and improve efficiency of product delivery
- **Team Size:** 12
- **Role:** Team Leader, Developer
- **Tools Used:** Machine Learning, Python, Azure, ServiceNow, REST Protocol

ServiceNow to ServiceNow Integration using REST:

- **Duration:** July, 2021 **–** September, 2021
- **Organization:** Tata Consultancy Services
- **Description:** To integrate two ServiceNow instances using REST Protocol
- **Outcome:** With the integration, automatically the data will be swivelled from one instance to another

- **Team Size:** 9
- **Role:** Developer, Primary Contact
- **Tools Used:** ServiceNow, REST Protocol

Third-Party to ServiceNow Integration using REST:

- **Duration:** April, 2021 **–** June, 2021
- **Organization:** Tata Consultancy Services
- **Description:** To integrate a third-party software with ServiceNow instance using REST Protocol
- **Outcome:** Automatic creation and updating of incidents in both the instances when certain conditions met
- **Team Size:** 9
- **Role:** Developer
- **Tools Used:** ServiceNow, REST Protocol

ServiceNow Email Integration:

- **Duration:** February, 2021 **–** March, 2021
- **Organization:** Tata Consultancy Services
- **Description:** To automate the creation and updating of incidents when emails are received from specific email ID's
- **Outcome:**
- **Team Size:** 9
- **Role:** Developer
- **Tools Used:** ServiceNow

Brain Tumor Detection using Convolutional Neural Networks:

- **Duration:** November, 2019 **–** March, 2020
- **Organization:** Guru Nanak Institutions Technical Campus
- **Description:** Collect Data Brain Tumor Symptoms to categorize the symptoms and then Classify the Brain Tumor using Convolutional Neural Networks
- **Outcome:** Helps people to know the brain tumor in advance using symptoms which helps them to get a good treatment
- **Team Size:** 1
- **Role:** Developer, Author
- **Tools Used:** Python, Machine Learning, PHP, MySQL, HTML, JavaScript, CSS, Bootstrap

INTERNSHIPS & TRAININGS:

- Completed a Coursera course **"Neural Networks and Deep Learning"** from deeplearning.ai taught by **Andrew NG** and achieved 100% grade in September, 2020. Credential ID: VQBCURE6DJUJ.
- Completed a Coursera course **"Applied Machine Learning in Python"** from **University of Michigan** and achieved 99% grade in September, 2020. Credential ID: CNAUG3TVGQ3Z.
- Completed a Coursera course **"End-to-End Machine Learning with TensorFlow on GCP"** from **Google Cloud** and achieved 95% grade in September, 2020. Credential ID: YZR5MXPKLA6R.
- Completed a one-week training and Internship with **Hyderabad City Police** at Hyderabad Police Cyber Cell and graded with **'A+'**. It is a **Cyber Smart Program – 2019** organized by Commissioner of Police Hyderabad Mr. Anjani Kumar (IPS) and Co-Founder/Director Hachershala Mr. Rakshit Tandon (Cyber Security Expert).
- Completed a one-month training and internship with **Imparta** at Hyderabad in diversified fields: **Ethical Hacking, IOT application development, Web Development**.
- Completed a five-months internship in **Johan Brown Pvt Ltd** at IT Decode park in Guru Nanak Institutions. The internship was about E-Book design and development.
- Completed a Coursera course **"Customer Analytics"** from **University of Pennsylvania** achieved 92% grade in February, 2018. Credential ID: 38HHL76S9CET.

- Completed a Coursera course **"Big Data Analysis with Scala and Spark"** and achieved 100% grade in January, 2018. Credential ID: 3UCG5A56H775.

RESEARCH WORKS (ORCID 0000-0002-5114-5205):

- **"Predicting the Rate of Transmission of Viral Diseases Using ARIMA", Springer – Studies in Big Data, Vol. 89, Advanced Soft Computing Techniques in Data Science, IoT and Cloud Computing.**
- **"Symptomatically Brain Tumor Detection Using Convolutional Neural Networks"**, **IOP Conference Series Materials Science and Engineering (Web of Science, & Scopus Indexed),** Volume 1022 - DOI: 10.1088/1757-899X/1022/1/012078.
- **"Improved Safety of Self-Driving Car using Voice Recognition through CNN", IOP Conference Series Materials Science and Engineering (Web of Science, & Scopus Indexed),** Volume 1022 - DOI: 10.1088/1757-899X/1022/1/012079.
- **"Predicting the Rate of Transmission of Viral Diseases Using GARCH", Springer – Lect. Notes Electrical Eng., Vol. 789, Emerging Research in Computing, Information, Communication & Applications** – DOI: 10.1007/978-981-16-1338-8.
- **"TRAFFIC SIGN BOARD DETECTION BY SELF DRIVING CARS USING TRANSFER LEARNING"**, **International Journal of Creative Research Thoughts** (Ref= IJCRT_2012227) Volume – 8, Issue – 12, December 2020 Edition, pages 2184-2191.
- **"A Deep Learning Approach for Cardiac Arrhythmia Detection", International Journal for Research in Applied Science & Engineering Technology** (Ref= IJRASET32399) Volume – 8, Issue – 12, December 2020 Edition, pages 77-81.
- "**Versatile Learning Models and Applications of Computer Vision: A Survey**", **Journal of Innovation in Information Technology**, Volume – 4, Issue – 2, pages 4-9.
- **"Recognition of Handwritten Characters using Deep Convolutional Neural Network"**, **International Journal for Research in Applied Science & Engineering Technology** (Ref= IJRASET30815) Volume – 8, Issue – 8, August 2020 Edition, pages 16-20.
- **"Concepts of Ethical Hacking: A Survey"**, **International Journal of Creative Research Thoughts** (Ref= IJCRT_193382) Volume – 8, Issue – 4, April 2020 Edition, pages 1279-1283.
- **"An Integrated Approach to Sentiment Analysis using Machine Learning Algorithms", International Journal for Research in Applied Science & Engineering Technology** (Ref= IJRASET27486) Volume – 8, Issue – 4, April 2020 Edition, pages 427-436.
- "**Prediction of Stock Trend for Swing Trades using Long Short-Term Memory Neural Network Model**", **International Journal of Scientific & Technology Research (Scopus Indexed)** (Ref= IJSTR-0320-31114) Volume – 9, Issue – 3, March 2020 Edition, pages 1918-1923.
- **"Prediction of Animal Vocal Emotions using Convolutional Neural Network", International Journal of Scientific & Technology Research (Scopus Indexed)** (Ref=IJSTR-0120-28358) Volume – 9, Issue – 2, February 2020 Edition, pages 6007-6012.
- "**Selection of Stocks using Relative Strength Index (RSI) in Indian Stock Market for Swing Trades**", August – 2019 at **7th International Conference on Innovations in Computer Science and Engineering**.

TECHNICAL SKILLS:

Programming Languages:	Python, C, Java, C++, Go Lang
Python Modules:	Tensorflow, OpenCV, Numpy, Pandas, Matplotlib, Scipy, Scikit-learn, PyAutoGUI, LXML, Pygame, Beautiful Soap, Selenium
Databases:	MySQL, NoSQL
Scripting Languages:	HTML, CSS, JavaScript, PHP
Tools:	ServiceNow, Power Automate, Azure, Google Cloud, Google Colab, Jupyter Notebook, Spyder, Visual Studio, R Studio, Brackets and Adobe Photoshop

Operating Systems: Windows, Ubuntu (Linux)

AWARDS & ACHIEVEMENTS:

- **Star of the Month Award (3 Times)** by **Tata Consultancy Services** for best teamwork and performance.
- **On the Spot Award (8 Times)** by **Tata Consultancy Services** for best performance.
- Awarded with **2nd Topper** Rank Award for my excellence in academic studies and for achieving top score in **Bachelor of Technology** (B. Tech) by Guru Nanak Institutions on the Guru Nanak Institutions College Annual Day Celebrations - 2019.

EXTRACURRICULAR ACTIVITIES:

- Organized and Volunteered the **Springer publication** Technical Sessions and Conference at Guru Nanak Institutions, Hyderabad. The conference is an International Conference conducted by Guru Nanak Institutions (ICICSE - 2018).
- Peer Reviewer for many research papers in Top Scopus Journals.