Jayant Sravan Tamarapalli

+1(412)-214-2121 | www.linkedin.com/in/jayant-sravan | jtamarap@andrew.cmu.edu

EDUCATION

Carnegie Mellon University - School of Computer Science May 2021 – December 2022
Master of Computational Data Science - GPA: 4.33/4 — *Pittsburgh, PA*

Birla Institute of Technology and Science (BITS), Pilani August 2015 – May 2019
B.E. (Hons.) in Computer Science - CGPA: 9.75/10 - Class position: 4th/750 students — *Hyderabad, India*
Relevant Coursework: Machine Learning, Information Retrieval, Artificial Intelligence

PROFESSIONAL EXPERIENCE

Microsoft R&D Pvt. Ltd. July, 2019 – August, 2021
Software Engineer — *Hyderabad, India*
- Designed and implemented the Search Insights and Analytics framework for O365 Exchange Admin Center that enabled the admins of 1M+ tenants to make data-driven decisions that helped improve user search experience.
- Developed a Scenario Validation Framework for the Search Insights and Analytics framework, performed threat modeling on it, and implemented protocols to make it compliant to various security and privacy standards required for deploying into U.S. Department of Defense Office 365 cloud.
- Ideated and spearheaded the implementation of Product Recommender System in the Microsoft Partner Co-sell website for suggesting most appropriate solutions and partners to the Microsoft business customers. This increased the user engagement on the website by 82% which translates to higher revenue for Microsoft through Co-sell.
- Transferred the Microsoft Partner Co-sell services from Azure Service Fabric to Azure Kubernetes Services which aided in containerization of the modules and lowering the production costs by 70%.

Nutanix Pvt. Ltd. January 2019 - June 2019
Software Engineering Intern — *Bangalore, India*
- Designed and presented different techniques of persisting Volume Group hierarchies for the optimal representation of time-separated differences and efficient disaster recovery.

RESEARCH EXPERIENCE

BITS Pilani January 2018 - December 2018
Named Entity Recognition & Classification for Telugu Language — *Hyderabad, India*
- Collaborated with Prof. N. L. Bhanumurthy to compare the performance of different SoTA word/phrase embedding techniques (Word2Vec, GloVe, ELMo) in Named Entity Recognition and Classification (NERC) for Telugu language using bi-directional LSTMs.
- Achieved improvements in recognizing Person names and Location names while maintaining competitive performance in other fields by using ELMo and annotating a new corpus.

Inter-University Center for Astronomy and Astrophysics May 2017 - August 2017
Short Gamma-Ray Burst (GRB) Detection — *Pune, India*
- Developed Short GRB detection program with Prof. Dipankar Bhattacharya using wavelet transforms and Support Vector Machine model on images from the Indian multi-wavelength satellite observatory, ASTROSAT. The model achieved an accuracy of 95.8% on the images available till 2017.
- Deployed the model on ASTROSAT and it is currently operational/being improved upon in the satellites used.

PROJECTS

Public API for Question Answering system on SQuAD dataset CMU | August 2021
- Implemented an algorithm for single-hop Question Answering on the SQuAD dataset with 100,000 questions using BertForQuestionAnswering and rsvp-ai/bertserini tokenizer from Huggingface to obtain an accuracy of 70%.
- Deployed the model on a public endpoint using Azure ML Workspace and Webservice.

Cervical Cancer classification using Pap-smear dataset from SRL diagnostics Microsoft | August 2020
- Developed a CNN network to detect areas of interests in pap-smear slides. It increased the Interobserver Agreement (probability of two radiologists agreeing on the diagnosis) from 34% to 79%.

SKILLS

Programming: Python, C++, C#
Libraries and Frameworks: PyTorch, TensorFlow, Keras, Numpy, Pandas, Scikit-learn, Huggingface, NLTK, .NET, Azure