Name: Saptarshi Majumder

Roll No: 19I190011

Department: Industrial Engineering and Operations Research

Institute: Indian Institute of Technology, Bombay

Research Experience

1. Ongoing or previous research experience, its relevance with the profile and how it can be utilized in job

During my pre-final year, I was selected as an intern as a **Deep learning researcher in the University of Cambridge, England**. As a deep learning researcher working in such a team, the demands and roles changed every week more or less, but mainly I was tasked to research various state-of-the-art models in deep learning which suited our cause and start spinning up the code for them. We were able to finally come up with a novel benchmark hybrid deep learning model (hybrid model in the sense that it involved a fair bit of computer vision and NLP) for depression status estimation which was quite a significant result at the time. Owing to my contributions to the team, I was subsequently made a co-author of the paper titled `***Depression Status Estimation by Deep Learning based Hybrid Multi-Modal Fusion Model***`. We have currently sent out our paper for publication in the reputed Nature AI journal.

This year in December I'm scheduled to present another of my papers titled `***EMRs with Blockchain: A distributed democratized Electronic Medical Record sharing platform***` *at the* reputed International Blockchain Conference and I'm glad to say that our is one of the **6 papers to have been accepted** in the Springer LNCS journal. It is due to come out in the annual publication In December.

Motivation

1. Please tell us why you wish to join FUJITSU. (Not more than 300 words)

I am interested in the role of **'Researcher Artificial Intelligence Laboratory'** offered by **Fujitsu R&D India** as I feel it aligns with my domain work and skills that I have gathered throughout my academic career and Internships/work experience. For me the motivation is not only to learn a lot from various people at Fujitsu R&D India but also the prospect of accomplishing and publishing papers at top conferences, getting patents for good work and achieving all the milestones together as a team with my fellow researchers at Fujitsu R&D India. The added bonus is to get the opportunity to further develop the proposed PoC.

Suitability:

2. Please tell us why you think you are a suitable candidate and how your experience and skills would be of benefit to the company (Not more than 300 words)

During my graduate study at IIT Bombay,I have taken courses where I have learnt about different Deep Learning and Machine Learning techniques and the research problems associated with it.

tI also have an undergraduate degree in Statistics and a minor in Computer Science and a few projects into software development, which helps me ponder and think about developing ML and DL systems in geenral.

In the Deep Learning domain, I did my Master's project in Audio Recognition systems and NLP and comparatively studied the effect of various State-of-the-art Audio recognition models like Mockingjay and AALBERT in resource constrained audio setups.

Career Goals

3. Please tell us about your career aspirations and what you would like to achieve with FUJITSU (Not more than 300 words)

After earning an undergraduate degree in Mathematical Statistics and minor in Computer Science, I decided to pursue a Master's degree in IEOR as I knew this would expose me to many real-world problems faced in various industries and help me garner a specific set of skills to solve it. I would say I am good at researching and developing solutions on real-world problems and my internships in the same has helped in this regard and more importantly I am passionate in researching up and producing PoC to difficult problems.

I am keen in the mathematics of machine learning, deep learning as I know through the intricate mathematical details of the problems can we utterly understand these black-boxes of Deep learning and gather increased insights into domain specific problems. Also, I have a keen interest in the theoretical backgrounds of different algorithms and developed my interest in statistical and mathematical methods underlying in few-shot learning, denoising autoencoder etc

I would love to use my statistical knowledge to learn more about machine learning, deep learning in depth to research and solve real-world projects undertaken by Fujitsu R&D India. I believe in with this role at Fujitsu I would be able to further improve myself and learn a lot more from others and researching up on diverse topics and various domains of work at Fujitsu.