Satish Kumar Keshri

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OBJECTIVE

A dedicated, capable and hard-working research fellow looking for PhD positions in the field of machine learning and deep learning. My primary research interests include Natural Language Processing, Healthcare AI and Continual Learning. I have around 4 years of industry experience in the field of machine learning and data science.

SKILLS

Natural Language Processing, Statistical Machine Learning, Deep Learning, Python, PyTorch, Optimization Algorithms

EXPERIENCE

• *Research Assistant*   November, 2023 - Present

Centre for Artificial Intelligence (CAI), IIIT Delhi
Hosted by Dr. Ranjitha Prasad, DRDO funded project

- Working on Continual Machine Learning to turn any machine learning model into a "lifelong learner". I am focused on addressing the challenge known as "catastrophic forgetting" within machine learning models and my project focuses on significantly mitigating this issue, ensuring that trained models maintain high performance levels across both new and old datasets. This approach allows for seamless model reuse, eliminating the need for extensive retraining, even in situations where the underlying data distribution undergoes changes.
- This work also tries to tackle the issue of data heterogeneity which is usually present in real-life datasets, through "Federated" learning frameworks.

• *Sr. Associate - Data Science*   April, 2022 - October, 2023

Dr. Reddy's Laboratories, Hyderabad

- Focused on developing Machine Learning Models, Insights Mining, Creating Custom in-house ML Algorithms, and Production Deployment
- **Projects**: "USFDA Deficiency Analytics" for insights on previously marketed drugs, "Auto Document Scrutinizer" for scrutinizing scientific documents even before filling for a new drug approval, "S2L - Selection to Launch" for assessment of potential new products through Analytics and Machine Learning, "DocQA" which is a GPT Based Question Answering System on internal documents.
- **Award**: Won Economics Times DataCon Award for our "Deficiency Analytics" project
- **Responsibilities**: Independently lead data science projects and a small yet dynamic team of junior data scientists. Experienced in stakeholder management by converting business statements into data science problems through direct interaction with the Vertical heads.

• *Analyst - Data Science*   June, 2020 - March, 2022

Consultant at Dr. Reddy's Laboratories, Hyderabad
Randstad India Pvt Ltd

- Worked on Machine Learning projects and NLP algorithms

- **Projects**: Machine Assisted Polymorph Screening (MAPS), Contextual Similarity Search
- Implemented a custom search engine based on internal text data leveraging the contextual understandings using BERT based model pre-trained on biomedical text data. Also, in the MAPS project, in collaboration with Polymorph scientists, predicted the output solid form of the polymorphs resulting in reduction of time and materials cost by 80%

- *Data Science Intern*   Feb, 2020 - May, 2020
Dr. Reddy's Laboratories, Hyderabad
  - During the internship developed a solution to automatically generate keywords and checklists from past U.S. Food and Drug Administration (USFDA) observation letters leveraging advanced NLP algorithms like Topic Modeling and Word Embedding vectors from Transformer based models. This tool helped approx. 150 people, in Regulatory office, to mistake-proof their future drug application filings by propagating insights from prior knowledge scattered across the organization.

EDUCATION

- *Master of Science*   July, 2018 - July, 2020
MSc in Big Data Analytics (Data Science)
Ramakrishna Mission Vivekananda Educational and Research Institute, Belur, Kolkata

  C.G.P.A 9.69/10.0, *University Gold Medalist*

- *Bachelor of Science*   August, 2015 - May, 2018
BSc (Hons.) in Mathematics and Computing
Institute of Mathematics and Applications, Bhubaneswar
Autonomous under Utkal University

  C.G.P.A 8.85/10.0, *First Class With Distinction*

ACHIEVEMENTS

- Our project won the **ET DataCon Award**, 2022 from The Economics Times (Link)
- Awarded with **INSPIRE Scholarship** by Department of Science and Technology (DST), Govt. of India, 2015

REFERENCES

- *Dr. Ranjitha Prasad*
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Indraprastha Institute of Information Technology, Delhi,
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