ASHISH KUMAR SINHA

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ABOUT

Highly motivated data science professional working as a ML Engineer at HP R&D. A firm believer in growth mindset, continuous learning with a demonstrated ability for time management and teamwork.

WORK EXPERIENCE

Machine Learning Engineer III, *HP R&D* *June 2022 - Present*

- Developed a user segmentation model based on personal system usage for 20M users.
- Employed various models, including LSTMs and self-attention mechanisms.
- Made robust and explainable models by implementing Evidential Deep Learning and SHAP.
- Collaborated with other teams, such as AB-testing and RCTs, to optimize product recommendations and increase revenue.
- Streamlined data processing and storage by using AWS services such as EMR, EC2, and S3.

Software Engineer, ML, *Tek Systems* *May 2021 - May 2022*

- Worked collaboratively with a team of Data Science and ML experts at HP R&D Bangalore.
- Contributed to the development of a large scale user segmentation model utilizing innovative deep learning techniques to enhance HP DaaS solutions.
- Implemented hierarchical RNN models to improve time series forecasting accuracy.
- Managed and optimized the handling of sparse usage data through multidimensional tensor implementation.

Data Science Intern, *HP R&D* *May 2020 - November 2020*

- Conducted research and developed time-to-event sequential models for predicting print failures in large-scale HP printers.
- Leveraged the Keras API to build Deep Learning models and developed custom loss functions and data generators to efficiently manage memory for large datasets.

SKILLS

Python, R, SQL, C++, NumPy, Pandas, scikit-learn, PySpark, Keras, PyTorch, Matplotlib, Scipy, Statsmodels, Seaborn, Plotly, DVC, NLTK, OpenCV, Amazon Web Services(AWS): EC2, S3, EMR

PROJECTS

- Retrieval Augmented Generation using llama.cpp (LLM) and FastAPI.(Code)
- Eigenspace update algorithm for image recognition.(Code)
- Efficient Apriori algorithm for frequent item-set mining.(Code)
- Solving Maze using Reinforcement Learning.(Code)

EDUCATION

Chennai Mathematical Institute, Chennai *Aug 2019 - May 2021*
M.Sc Data Science *CGPA: 8.69*

Institute of Science, Banaras Hindu University, Varanasi *July 2016 - May 2019*
B.Sc. Statistics(Hons.), Mathematics and Computer Science *Overall CGPA: 8.78*