Taresh Batra

BITS Pilani '23 | Data Science

Experience

AMERICAN EXPRESS, AI LABS | AI Analyst

July 2023 – Present (Full Time) | Gurugram, India

- Leading efforts to implement A/B testing machine learning capabilities, facilitating systematic model upgrades for enterprise modelers. Additionally, contributing to the enterprise's cloud migration to GCP as part of a collaborative team.

July 2022 – December 2022 (Internship) | Gurugram, India

- Spearheaded a project focused on enhancing Amex's ML Ops, with a key focus on designing configurable data pipelines to enhance flexibility for enterprise modelers. This initiative resulted in substantial time savings, alongside improvements in system intuitiveness and robustness.

COULOMB AI | Data Science Intern

November 2021 – January 2022 | Bangalore, India

- Coulomb AI is a Y-Combinator-backed start-up working towards accelerating automotive electrification. I created several deep learning models to predict the SOH (State Of Health) and the RUL (Remaining Useful Life) values for industry-grade electrical batteries to improve their then prediction capacity.

UST GLOBAL | Machine Learning Intern

May 2021 – July 2021 | Trivandrum, India

- Constructed a meeting summarization tool utilizing a transformer-based model from HF. The tool performed abstractive text summarization, i.e., paraphrasing the core content of provided text while employing a distinct vocabulary from the original document. Link

Projects

FLIBGIB (Website, App)

- Initiated a collaborative project with a partner to improve the online dating experience while maintaining sensitivity to its intimate nature. We also recruited and managed a team of over 20 interns from various colleges to establish an online presence and enhance our MVP.

CUFFLESS BP PREDICTION (Repository)

- Collaborated with researchers at HKUST Hong Kong, under the supervision of Professor Tirtharaj Dash (Postdoc, UC-San Diego), on an investigative study to enhance the precision of non-invasive blood pressure monitoring methods, specifically PPG and ECG, to closely approximate the gold standard of invasive procedures such as ABP.

SEQ2SEQ MUSIC GENERATION (Repository)

- Built a sequential model to generate the next musical note based on a preceding sequence of notes, thus creating a 'new' song by predicting a sequence to follow an existing sequence. We used a bi-directional LSTM model and trained it on genre specific songs available in the MIDI dataset.

SAR-OPTICAL IMAGE TRANSLATION (Repository)

- Worked under Dr Nitin Sharma (Assoc Prof, BITS Pilani) to assist him with his reaearch on SAR-Optical Image Translation, funded by ISRO. Proposed a Supervised CycleGAN with a U-Net architecture and used techniques like equalized learning rate and layer normalization introduced in the ProGAN paper to smoothen the training process in an attempt to build on the state-of-the-art.

Skills

TECHNOLOGIES

- ML •ML Ops • DL
- Data Mining • NLP • CV
- BI • UI/UX Design
- Full-Stack App Development

PROGRAMMING

- Python • Dart • MATLAB
- SAS• JS • Java • SQL • C++

LIBRARIES/FRAMEWORKS

- PyTorch • Tensorflow • spacy
- Pandas • Numpy • OpenCV

SOFTWARES/TOOLS

- Git • GCP • Flutter
- Hadoop • Spark • Hive

Education

BITS PILANI

B.E. Electrical and Electronics Engineering (EEE) (Major) Data Science (Minor)

Aug 2019 - May 2023 | Goa, India

CGPA: 9.05 / 10.00

Coursework

- Foundations of Data Science
- Deep Learning
- Applied Statistical Methods
- Reinforcement Learning
- Machine Learning
- Optimization
- Digital Image Processing
- Communication Systems
- Mobile Telecom Networks

Other Interests

- Football
- Table Tennis
- Formula 1
- Technical Writing
- Digital Art

Contact Info