Taresh Batra

BITS Pilani '23 | Data Science

Experience

AMERICAN EXPRESS, AI LABS | AI Analyst-Intern
July 2022 – December 2022 | Gurugram, India

- Worked on a project aimed at refining Amex's ML Ops to make its internal AI deployment platforms more efficient. Specifically towards creating configurable data pipelines to allow more flexibility to enterprise modelers, saving numerous work hours while also making the setup more intuitive and robust.

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 by making the EV business profitable faster.
- 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

- Built a meeting summarizer tool using a transformer-based model. This task fell under the domain of abstractive text summarization (paraphrasing the main contents of the given text, using a vocabulary different from the original document). Click here to view the project.

Projects

FLIBGIB (Website)

- I started this project with a friend, building on our idea to make online dating a more wholesome experience for everybody while respecting the sensitivity associated with this intimate matter. We also created and managed a team of over 20 interns from various colleges to create an online presence for ourselves and enhance the MVP.

CUFFLESS BP PREDICTION (Repository)

- Worked on an investigative study in collaboration with researchers at HKUST Hong Kong under the guidance of Professor Tirtharaj Dash (Postdoc, UC-San Diego) to improve the precision of non-invasive blood pressure monitoring methods (PPG and ECG) to resemble the gold standard of invasive procedures like ABP. Improving on this process will yield easy access to accurate cardiac vitals for quick medical diagnosis.

SEQ2SEQ MUSIC GENERATION (Repository)

- We built a sequential model to generate the next musical note given a previous 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 improve the state-of-the-art model for SAR-Optical Image Translation. His research on this topic is funded by the Indian Space Research Organisation (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 • Keras
- Pandas • Numpy • RL-Glue

SOFTWARES/TOOLS
- Git • Firebase • Tableau
- Flutter• Spark • Hive

Education

BITS PILANI
B.E. Electrical and Electronics Engineering (EEE) (Major) Data Science (Minor)
Aug 2019 - Present | Goa, India
CGPA: 9.08 / 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