Taresh Batra

Pre-Final Year Student @ BITS Pilani
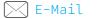
🏠 Home   ⊙ GitHub   in LinkedIn   ✉ E-Mail   📞 Phone

EXPERIENCE

COULOMB AI | DATA SCIENCE INTERN
November 2021 – January 2022 | Bangalore, India

- ➔ Coulomb AI is a Y-Combinator backed start-up. It is working towards accelerating automotive electrification by making the EV business profitable faster.
- ➔ My job here was related to predicting the SOH (State Of Health) and the RUL (Remaining Useful Life) values for industry-grade electrical batteries. The lifetime of such batteries is tricky to predict based on the readings observed in the first few battery cycles. I helped with the feature engineering aspect with an exhaustive EDA, and also developed a few models that helped towards increasing their then prediction capacity.

UST GLOBAL | MACHINE LEARNING INTERN
May 2021 – July 2021 | Trivandrum, India

- ➔ My job here was to build a meeting summarizer. 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).
- ➔ I used a transformer-based model called BART, developed by Facebook AI and fine-tuned it on a dataset called SAMSum, which contains a lot of chat conversations and their summaries.

PROJECTS

FLIBGIB | APP DEVELOPMENT AND ENTREPRENEURSHIP
June 2021 - Present

- ➔ Flibgib is a self-initiated project. I started this project with a friend, building on an idea we had to make online dating a more wholesome experience for everybody while respecting the sensitivity associated with this intimate matter.
- ➔ We found that most leading dating apps were primarily trying to reinforce desperate behaviour by engaging the users' attention with their addictive gestures.
- ➔ The MVP is almost complete and is expected to go into beta testing by the second week of April 2022.

SAR-OPTICAL IMAGE TRANSLATION | COMPUTER VISION (CV)
August 2021 - December 2021

- ➔ I worked under Dr Nitin Sharma (Associate Professor, BITS Pilani, Goa Campus) with the purpose of improving 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).
- ➔ We built 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.

CUFFLESS BP PREDICTION | TIME-SERIES FORECASTING
January 2022 - Present

- ➔ I am working on an investigative study in collaboration with researchers at HKUST Hong Kong under the guidance of Professor Tirthraj Dash. This project aims to improve the precision of non-invasive blood pressure monitoring methods (PPG and ECG) to resemble the gold standard of invasive procedures like ABP. Doing so will yield easy access accurate cardiac vitals for quick medical diagnosis.

SKILLS

TECHNOLOGIES
- Machine Learning • BI
- Data Mining • NLP • CV
- Data Science
- Full-Stack App Development

PROGRAMMING
- Python • C • C++ • Dart
- MATLAB • Java

LIBRARIES/FRAMEWORKS
- PyTorch • Tensorflow • Keras
- Pandas • Numpy

SOFTWARES/TOOLS
- Git • Firebase • Tableau
- MATLAB • Flutter• Adobe Xd

EDUCATION

BITS PILANI
B.E. ELECTRICAL AND ELECTRONICS ENGINEERING (EEE) (MAJOR) DATA SCIENCE (MINOR)
Aug 2019 - Present | Goa, India
CGPA: 8.91 / 10.00

PACE JUNIOR SCIENCE COLLEGE
HIGH SCHOOL DIPLOMA
May 2017 - May 2019 | Mumbai, India
ICSE Exam Score: 85.38/100.00

PAWAR PUBLIC SCHOOL, CHANDIVALI
MIDDLE SCHOOL
Aug 2013 - Mar 2017 | Mumbai, India
HSC Exam Score: 96.33/100.00

COURSEWORK

- Foundations of Data Science
- Deep Learning
- Applied Statistical Methods
- Optimization
- Control Systems
- Machine Learning
- Communication Systems
- Reinforcement Learning