Saksham Bassi

About LinkedIn Github 737-288-2873 sb7787@nyu.edu

EDUCATION

New York University - Courant Institute of Mathematical Sciences — GPA - 3.7/4.0
Master of Science in Computer Science - focus on Machine Learning — *May 2023*

University of Pune — GPA - 8.67/10
BE in Information Technology — *June 2019*

SKILLS

Languages: Python, Java, C++, Node.js, HTML, CSS, R, Git
Databases: SQL, DynamoDB, MySQL, MongoDB, CosmosDB
Tools: PyTorch, Apache Airflow, HuggingFace, AWS Lambda, Flask, Google Cloud Platform, Tableau, Apache Spark, Docker

EXPERIENCE

CILVR Lab, NYU — New York, NY
ML Researcher — *Sept 2022 - Present*
- Implementing framework for Large Language Models to perform zero-shot transfer to low resource languages.
- Proposed methods to examine model generalization using visualization & complexity measures. [code]

Amazon — Seattle, WA
Software Development Engineer Intern — *May 2022 - Aug 2022*
- Implemented a new notification service that sends a push notification when a payment is failed in Amazon Care.
- Designed a fast and simplified system design for the service and wrote unit tests to make the system fault-tolerant.
- Regained lost revenue due to failed payments or expired credit cards. [*Java, AWS Lambda, DynamoDB*]

Glance, InMobi Group — Remote
Data Scientist II — *Apr 2021 - Aug 2021*
- Built end-to-end exploration-feed ML infrastructure for millions of daily users to improve recommendations.
- Integrated Node2Vec model to learn user embeddings and automated execution through Airflow.
- Improved user engagement by 30% using recommendations from top-k creators. [*Python, PySpark, Airflow*]

HSBC — Pune, India
Software Engineer — *July 2019 - Apr 2021*
- Devised logging architecture to monitor application and on-premise logs for critical alerting. Saved $3M annually which were spent on proprietary logging software. [*Fluentd, Grafana, GCP, Python*]
- Created a system to automate handling of Virtual Machines and to incorporate alerting.
- Led the development of a mailing service to map and send financial documents to clients.[*Java, Microsoft EWS*]

Asquared IoT — Pune, India
ML Engineer (Intern) — *June 2018 - June 2019*
- Built a hybrid system of Neural Net (to denoise audio) and CNN (on spectrograms) to qualitatively assess industrial processes. [*Flask, Keras, HTML, CSS*]

PROJECTS

Visualizing loss landscape of Large Language models (LLMs), NYU [report], [poster] — Fall 2022
- Implemented an empirical visualization setup to compare large models to investigate flatness hypothesis.
- Devised a sharpness measure to calculate the flatness of loss landscape.

Universal-Dependency-BERT: token classification of dependency graph and POS tags, NYU — Fall 2022
- Built framework for predicting dependency graph and POS tags using fine-tuning of BERT for multiple languages achieving 0.8 UAS and 0.74 LAS.

Transformer encoder for Neural Machine Translation, NYU — Fall 2022
- Implemented a Transformer based encoder for Neural Machine Translation of English to French, BLEU score ≈ 25.12.

Learning High-Dimensional Causal Effect, NYU [code] — Spring 2022
- Proposed a high-dimensional causal dataset generation to explore Deep-Learning models like ResNet & Transformers.

Deep Learnt variable star classification, IUCAA [article] — Fall 2019
- Built a one-dimensional hybrid model of a convolutional network and LSTM to classify variable star classes to speed up categorization - **10x faster** improvement