Rishab Mallick

rishab.page

EXPERIENCE

Unify (YC W23)

Machine Learning Engineer

May 2023 - Current

Email: rishabmallick6@gmail.com

GitHub: github.com/rishabgit

- AI Bench: Designed methodology & implemented runtime performance benchmarking with CI/CD infra on GCP.
- o Model Hub: Created LLM provider router supporting Perplexity, Replicate, OpenAI, Anyscale, Vertex AI etc.
- Ivy Framework: Integrated <u>Ivy</u> into OSS repos <u>BentoML</u>, <u>Seldon-Core</u>, <u>Seldon-MLServer</u>, <u>MMPretrain</u>. Added new <u>functions</u>, reviewed <u>PRs</u>, ensuring code quality & compliance with standards.
- Transpiler: Remodeled source code generation logic to comply with torch.fx convention for easier debugging. Researched TPU support for transpilation & framework-agnostic (PyTorch, Jax, TensorFlow) profiler.
- Enterprise Demos Lead: Collaborated with the Head of Operations on sales calls & market research for future product direction. Managed cross-functional teams, oversaw development, & defined demo objectives, ensuring alignment with organizational goals. Executed public demos showcasing value prop XGBoost, MMPretrain.

Small Joys

Founding AI Engineer

Nov 2021 – Aug 2023

- Inclusive AI: Addressed unintended bias in NLP, enhancing model robustness against adversarial text, surpassing Google & AWS sentiment analysis on internal datasets. Deployed inference API on AWS.
- Health: Pilot project for predicting behavioral health from therapy sessions through multiple modalities.
- Insights: Easy-to-digest information for therapists from user journals through Themes & Journal Abstraction AI.
- $\circ \ \, \textbf{ScreenerOMR} \hbox{: Constructed a Python package for extracting pertinent data from scanned medical screeners.}$
- Annotation Framework: Implemented annotator cohorts of 10, & devised labeling process for golden data of sentiment, emotion, ACEs, and ICD-10. Wrote classification data augmentation with GPT-3.

Google Summer of Code

Student Software Developer

Jun 2021 - Aug 2021

- **GenomicInfo**: Engineered a <u>framework</u> for rapid genomic data extraction from C. Elegans papers for WormBase, employing a hybrid method of regular expressions, term dictionaries, & BERT NER.
- Impact: Cut manual biocuration time from hours to minutes, while uncovering overlooked data from older papers. Published Accelerated variant curation from scientific literature using biomedical text mining in microPublication Biology with Valerio Arnaboldi, Paul Davis, Stavros Diamantakis, Magdalena Zarowiecki, & Kevin Howe.

Centre for Development of Advanced Computing

Research Intern

Apr 2021 – Jun 2021

• Masked Face Recognition: Crafted a facial recognition system compatible with masks for law enforcement authorities, tailored for low-end devices in collaboration with the image processing team.

Myraa Technologies

AI Solutions Intern

Sep 2020 – Mar 2021

- Detection: Developed custom object detection for low-end wearable devices in manufacturing TFLite, Android.
- e-Proctor: Built online exam e-proctor with facial recognition & features tracking, & gadget detection.
- CADAnalyzer: Programmed engineering drawing comparison tool for universities.
- ${\bf \ \, Explorative \ POCs: \ Car \ damage \ diagnosis \ system \ on \ low \ data, \ \& \ usage \ of \ privacy-preserving \ DL \ with \ PySyft. } }$

Awards

• Dr. APJ Abdul Kalam IGNITE Award | National Innovation Foundation - India

November 2015

- Received IGNITE 2015 award by the former President of India, Pranab Mukherjee, for the idea 'Pay as you weigh' one of 31 innovations selected from 28,106 submissions across India. Patent ID: 1189/KOL/2015
- Regional Winner of ZooHackathon | WWF

November 2019

• Awarded for engineering best solution to curb wildlife trafficking among 12 other finalists.

EDUCATION

St. Thomas' College of Engineering and Technology

India

Bachelor of Technology in Computer Science & Engineering, GPA: 8.84

2018 - 2022

Kendriya Vidyalaya Fort William

India

CBSE, GPA: (class 12th) 86.5% & (class 10th) 95%

2006 - 2018