

Suvaditya Mukherjee

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EDUCATION

- **NMIMS Mukesh Patel School of Technology, Management and Engineering** Mumbai, India
Bachelor of Technology - Computer Science (Artificial Intelligence); GPA: 3.93/4 *August 2020 - May 2024*
Courses: Deep Learning, Data Structures and Algorithms, Machine Learning, Natural Language Processing, Software Engineering, Operating Systems, Mathematics, Computer Organization and Architecture, Computer Networks, Database Management Systems

SKILLS SUMMARY

- **Languages:** Python, Java, Dart, Bash, HTML, JavaScript, Rust, C++
- **Frameworks:** TensorFlow, Keras, PyTorch, Scikit-Learn, OpenCV, JAX, Flask, NodeJS, Flutter, React
- **Tools:** Docker, Kubernetes, Git, PostgreSQL, MySQL, SQLite, Wireshark, Weights&Biases, Optuna
- **Platforms:** Linux, Web, Windows, Arduino, Raspberry, AWS, GCP, GitHub Actions, Heroku
- **Soft Skills:** Leadership, Technical Writing, Research, Public Speaking, Time Management, Event Management

EXPERIENCE

- **HARMAN International** Remote/Bengaluru, India
Machine Learning Intern *December 2023 - Present*
 - **LLMOps Pipeline Design:** Helping in the development of end-to-end LLMOps pipelines to deliver projects to stakeholders
 - **Development of LLM Applications:** Developing customized LLM-based applications for specific fields of specialization, as per project requirement
- **Weights & Biases** Remote/San Francisco, CA, USA
Author (Part-time) *October 2023 - Present*
 - **WandB Reports:** Creating high-quality Weights & Biases Reports around the newest trends in Computer Vision and Machine Learning
 - **Integrations:** Developing new integrations for Weights & Biases with popular open-source libraries with logging capabilities
- **PyImageSearch** Remote/New York City, NY, USA
External Author (Part-time) *July 2023 - Present*
 - **Blog Posts:** Writing highly technical and researched blog posts around different challenges within Computer Vision and Machine Learning
 - **Video Blogging:** Developing informative videos around the written blog posts for generating educational content
- **Center for Visual Information Technology, IIIT-Hyderabad** Remote/Hyderabad, India
Research Intern (Full-time) *June 2023 - Nov 2023*
 - **Research:** Working towards a publication along Domain Adaptation problems in Autonomous Driving under Prof. C.V. Jawahar and Prof. Shankar Gangisetty
 - **Code Implementations:** Operating with internal tools to perform large-scale GPU training and experimentation on Image Segmentation problems
- **Ivy (lets-unify.ai)** Remote/London, United Kingdom
ML Research Engineer Intern (Full-time) *Jan 2022 - July 2023*
 - **Demos and Examples:** Work done towards adding newer demos, examples, and guides to the internal and external official documentation, most notably around converting torchvision models into TFLite
 - **Front-end and Back-end APIs:** To work on adding to existing infrastructure for front-end and back-end functions in TensorFlow and JAX
 - **Internal AI Developer:** To work on an AI Developer (Code-LLMs) that automates and builds upon the existing codebase and speeds up internal development, along with handling their training through Cloud resources like GCP and AWS
- **Mosaic Wellness Pvt. Ltd.** Mumbai, India
Software Engineer Intern (Full-time) *May 2022 - July 2022*
 - **Image Annotation Tool:** In-house end-to-end tool, developed with TypeScript (APIs from/into Amazon RDS) and integrated into a React frontend to be used by doctors for tagging and annotation of patient images.
 - **ML CI/CD Pipeline:** Designed and partially implemented a Continuous ML pipeline with use of AWS SageMaker, AWS RDS and AWS EC2 for deployment of a classifier.

LEADERSHIP

- **Google Summer of Code '23** Remote
Org Admin and Mentor - Ivy (unify.ai) *February 2023 - Present*
 - **Mentor for Hugging Face Model Zoo Projects:** Mentoring Contributors to add newer models and demos to the Ivy documentation
 - **Org Admin:** Handling all communications with Google Open Source Programs Office and maintaining all compliance with program rules
- **Google Developer Expert** Mumbai, India
TensorFlow Core, Keras *May 2023 - Present*
 - **Leader:** Actively mentoring students and early-career professionals around Machine Learning using TensorFlow
 - **Speaker:** Educating people about the TensorFlow ecosystem by delivering talks at various conferences in India and abroad
 - **Contributing Developer - KerasCV, keras.io:** Helping out in the development of several guides and tools for the Keras ecosystem
- **Google Developer Groups Mumbai** Mumbai, India
Co-Organizer and Member *October 2022 - Present*
 - **Speaker:** Delivering talks around topics of Machine Learning and Cloud Computing at events around India
 - **Mentor:** Helping students get into Deep Learning and Cloud Technologies to jumpstart their development journey
 - **Co-organizer:** Organizing events and sessions to increase technology literacy and help cultivate a strong Technical ecosystem around Mumbai
- **Google Developer Student Club - NMIMS MPSTME** Mumbai, India
Lead (Full-time) *July 2021 - July 2022*
 - **Hackathon Organizer:** Organizing a college-level Competitive Programming competition with 100+ participants on a platform developed in-house by our team. Handled end-to-end GCP back-end and streaming server setup solution.
 - **Lead Organizer - GDSC MPSTME AI Summit:** Organizing a series of speaker sessions as lead organizer of GDSC MPSTME AI Summit with Prof. (Dr.) Geoffrey Hinton as keynote speaker.
 - **Google Cloud Facilitator:** Organizing 30 Days of Google Cloud with 100+ participants and 25+ people completing eligibility tasks.

PROJECTS

- **TranscribeMate (Deep Learning, Flutter, App Development):** A Flutter-based application that allows users to make quick image notes and directly transcribe images to text via OCR using Flutter MLKit. Tech: Flutter, MLKit, Firebase Auth (January '22)
- **Mobile Price Classification (ML, Data Science):** Data Analysis and development of a Classifier, based on publicly-available MobileClassification dataset. Tech: Python, Scikit-Learn, Numpy, Matplotlib, Pandas, Seaborn (April '22)
- **SecureDataTransmission - (Cryptography):** A Java-based library that allows data transmission with a two-layer (AES256 + RSA2048) encryption with fully in-built key management. Tech: Java, SQLite3, javax.crypto, Apache Commons (January '22)
- **ISS Location Marker (Networking, REST APIs):** Simple program to query the location of the International Space Station and mark it on a global map. Tech: Rust, tokio, RESTful APIs (November '21)

PUBLICATIONS AND RESEARCH

- **Paper: MRI Radiomics in Classification of Diffuse Gliomas:** Work on tumour grade classification prediction problem by Research Group in collaboration with Advanced Centre for Treatment, Research and Education in Cancer, Tata Memorial Cancer Institute
- **Paper: Guiding the Student's Learning Curve: Augmenting Knowledge Distillation with Insights from GradCAM:** Work on investigating the effects of using GradCAM representations of Teacher models as direct inputs to Student models for quicker convergence. [Accepted]
- **Paper: Project Lingua Franca: Democratizing Information through Unified Optical Character Recognition and Neural Machine Translation:** Work on combined Optical Character Recognition and Neural Machine Translation for information translation with high-impact languages as targets [Accepted]

AWARDS, CERTIFICATES AND HONORS

- **TensorFlow Community Spotlight Award** for the official Keras.io tutorial on Temporal Latent Bottleneck (joint work with Aritra Roy Gosthipaty)
- Nominated by **TensorFlow User Group Mumbai** to the **Google Developers ML Bootcamp**, received scholarship to complete Coursera Deep Learning Specialization - December, 2022
- Selected as Student for **6th Summer School on AI with Focus on Computer Vision and Machine Learning** at Center for Visual Information Technology, IIT-Hyderabad - July, 2022
- Selected as Student for **Oxford ML Summer School** at Oxford Mathematical Institute, Oxford, UK (Attended remotely) - July, 2023
- Runner's Up at IET Hack N Code 5.0 Hackathon
- Runner's up at IEEE CS Society Analytika - Data-Feud
- Qualified for INSPIRE Scholarship - Govt. of India
- Best Student Award - Jankidevi Public School