Shuvam Das

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Education

- **Indian Institute of Technology (Indian School of Mines) Dhanbad** — **Dec 2020 - May 2025**
  B.Tech. in Electrical Engineering
- **Hariyana Vidya Mandir, Kolkata, West Bengal** — **Apr 2019 - Apr 2021**
  12th — **Percentage** : 95.6%
- **St Joan's School, Kolkata, West Bengal** — **Apr 2018 - Apr 2019**
  10th — **Percentage** : 97%

Work Experience

- **Deepkapha AI labs (Netherlands) - AI Intern** — **December 2022 - Aug 2023**
  - Built a full-scale dense net model to detect anomalies in solar panels.
  - Contributed to pitching a fully worked model to 4 clients and winning them to accept our solution.
  - Built a model to detect wind speed for storm prediction for a weather disaster prediction system.
  - **Tech Stack**: Computer vision, Machine Learning, Data Science, Python, Tensorflow, Pytorch, Python.

- **1 Click Tech (India) - Python Developer** — **April 2023 - Aug 2023**
  - Built a model to predict the carbon emission footprints of different products available.
  - Along with the prediction system, I also added a recommender system to recommend lower-emission products.
  - Researched and pre-processed more than 100,000 data for the finer model.
  - **Tech Stack**: Machine Learning, Data Science, Python, MySQL, MongoDB, Pytorch, Python.

Projects

- **Solar PV module anomaly detection Model - Web App** — **March 2023**
  - A streamlit web app where customer can add their solar PV panel pictures taken from drone surveys and the model will detect any anomalies on the panels.
  - The model categorizes the prediction among different anomalies like cracking, vegetation, etc, and provides the damage it can do in the following years.
  - The model also provides a detailed analysis of how much revenue loss it will cost the owner if the maintenance is not done to the panels and hence the net energy loss.
  - **Tech Stack** - Data Structures and Algorithms, Rest APIs, Flask, Deep Learning, Computer Vision, Docker.
    GitHub
- **Lip Reading with AI - Web App** — **December 2023**
  - A website that will predict what the user is saying by reading the lips.
  - This project can be used by deaf people allowing them to use online video communication.
  - It can also be used by customs or Bureau agencies to predict far conversations between suspected criminals through video footage.
  - **Tech Stack** - Tensorflow, Deep Learning, Flask, Streamlit, Python, Rest APIs, Open-CV
    GitHub
- **Braille - Web and Mobile App** — **August 2023**
  - Ideated and collaborated on a product for Braille writing and reading aid for blind users. It will enable the blind people to use mobile phones very easily.
  - Created the algorithm to read hand gestures on mobile screens to depict the braille characters and even what applications they want to use.
  - Worked on the machine learning model to create the dot recognition to implement vibration and letter recognition system to recognize any braille character the user inputs.
  - Contributed on the mobile app that shows and reads the data for blind people
  - **Tech Stack** - HTML, CSS, JavaScript, Android Studio, Tensorflow, Deep Learning, Flask, Streamlit, Python, Rest APIs.
    GitHub

Technical Skills

- **Languages :** C++, C, Python, R, HTML, CSS.

- **Machine Learning :** Deep Learning, Generative-AI, LLMs, Fine-tuning LLMs, Open-CV, Tensorflow, Pytorch, Data Analysis.
- **Database :** SQL, MongoDB.
- **Tools :** Postman, Jupyter Notebook, Google Collaboratory, VS Code, Pycharm, MS Excel, MS Office, Tableau, Rest APIs, API hosting, MongoDB, SQL, Docker, AWS service.
- **Computer Science :** Data Structures & Algorithms, Object Oriented Programming,
- **Operating System :** Windows, Mac OS, Linux

Achievements/Position of Responsibility

- Selected by the **Harvard committee** for being the HPAIR 2023 Delegate.
- Secured a rank in the **top 30 among 4000 teams** in NIT Trichy hackathons on Machine Learning.
- Solved more than **200+ DSA** and Competitive Programming Questions.
- Finished **14th out of 1200** teams in Hackfest 2023, a hackathon organized by IIT(ISM) Dhanbad.
- Secured **2nd rank in MI hackathon** by IIT Dhanbad.
- **JEE Advanced 2021** - AIR 6295
- **JEE Mains 2021** - 97.20 percentile.
- **Global rank 76 in Codechef Starters 84.**
- Fluent in **English, Hindi, and Bengali.**