Abhiroop Mukherjee

Email: abhiroop.m25902@gmail.com
Mobile: +91-8451909828
LinkedIn: linkedin.com/in/abhiroop25902/
Github : github.com/Abhiroop25902

EDUCATION

Indian Institute of Engineering Science and Technology, Shibpur — Howrah, India
Bachelor of Technology - Computer Science and Technology; CGPA: 9.64 — *July 2019 - June 2023*
Courses: Data Structures and Algorithms, Database Management Systems, Operating Systems, Computer Networks

Kendriya Vidyalaya Koliwada — Mumbai, India
10 CGPA AISSE, 2017; 96.2% AISSCE, 2019 — *March 2007 - June 2019*

SKILLS SUMMARY

- **Languages:**   JavaScript, TypeScript, HTML, CSS, Java, Python, C++
- **Frameworks:**   React, ExpressJS, SuiteScript, UIF, TensorFlow, OpenCV, Scikit
- **Platforms:**   NetSuite, Google Cloud, Google Colab

EXPERIENCE

Software Developer — July 2023 - Present
Oracle India Private Limited — *Hyderabad*
- Built and optimized ERP features across 6 SuiteApps deployed to approx. 3500 companies using SuiteScript 2.x, UIF, and SuiteQL.
- Improved financial reporting performance of NFP SuiteApps by 20% and reduced large transaction dataset page load time from over a minute to 2 seconds (98% improvement).
- Achieved Top 30 worldwide / Top 3 India in Oracle NetSuite's global AI hackathon with an LLM-based analytics chatbot.

Flutter Developer — Jun 2022 - Jul 2022
EVE Healthcare — *Remote*
- Developed the company's mobile application using Flutter, contributing to ₹37,000 revenue on its launch day.
- Collaborated with two colleagues to deliver a production-ready app that met all functional and business requirements.

Project Intern — June 2022 - July 2022
Oracle India Private Limited — *Remote*
- Developed ERP features for the Transaction Line Distribution SuiteApp, currently deployed across approx. 500 customer accounts serving 600,000+ users.
- Earned a Pre-Placement Offer (PPO) for strong performance.

Full Stack Web & Mobile App Software Intern — Apr 2021 - May 2021
SystemOnSilicon — *Remote*
- Designed the ITX Global website and the SystemOnSilicon website using Bootstrap, HTML and CSS

PUBLICATIONS

Detection of Cipher Types Using Machine Learning Techniques — IIEST Shibpur
Major Project (CS4291) under the supervision of Prof. Malay Kule — *Aug 2023*
- Achieved 96.72% classification accuracy across Caesar, Affine, Vigenère, Substitution, and Rail-Fence ciphers using multi-shot prompting on the OPT Transformer model.

PROJECTS

- **PCOD Nourish - AI Nutrition & Meal Logging Platform** — Nov 2025
  - Built an AI-driven PCOD nutrition platform using React, Firebase Auth, Firebase Cloud Storage, FireStore DB, and Genkit (Gemini 2.5 Flash).
  - Implemented onboarding flows, photo-based meal logging, and an AI recommendation dashboard with scheduled backend automation.
  - Won 3rd place at Google's Build and Blog Hyderabad hackathon for this end-to-end solution.

- **AI Video Upscaling** — Feb 2025
  - Scaled EDSR Image SuperResolution Model to handle video resolution upscale to three times it's original dimensions.
  - Reached 2.0 sec/frame on 500×280 inputs and 2.53 sec/frame on 640×360 inputs using a Google Colab dedicated GPU.
  - Project has accumulated 56 GitHub stars to date.

- **CoWin Checker** — June 2021
  - Built a Python script that periodically checked CoWin servers for available vaccination slots filtered by location and age group.
  - Added OS-level notifications for real-time alerts when slots opened.
  - Detected an available vaccination slot within two days of continuous operation.

- **Analysis of Disjoint Set Operations**   IIEST Shibpur
  Algorithm Lab (CS2771) under the supervision of Prof. Abhik Mukherjee   *Apr 2021 - May 2021*
  - Implemented linked-list-based and tree-based Disjoint Set (Union-Find) data structures in C++.
  - Evaluated performance on large real-world graph datasets:
    * KONECT Western USA Roadmap Graph
    * SNAP Facebook Social Circle Graph
    * SNAP Epinions Social Network Graph
    * SNAP LiveJournal Social Network Graph
  - Measured running times on an Intel Core i5-8265U, 8 GB RAM, using WSL Ubuntu on Windows 10.
- **Analysis of Running Time Complexity of Sorting Algorithms**   IIEST Shibpur
  Algorithm Lab (CS2771) under the supervision of Prof. Abhik Mukherjee   *Feb 2021 - Apr 2021*
  - Implemented linked-list-based and tree-based Disjoint Set (Union-Find) data structures in C++.
  - Generated uniformly and normally distributed datasets as inputs for sorting in C++.
  - Implemented Merge Sort, Quick Sort, Randomized Quick Sort, Median-of-Medians Quick Sort, and Bucket Sort as a team of three.
  - Analyzed swap counts and execution times across varying input sizes for both distributions.
- **Object Recognition for Observing Social Distancing**   IIEST Shibpur
  Minor Project (CS2291) under the supervision of Prof. Samit Biswas   *Sep 2020 - Jan 2021*
  - Deployed a pre-trained YOLOv3 model to detect people in video frames with approximately 90% accuracy.
  - Extended the system to compute pairwise distances between detected individuals to monitor social distancing.
  - Collaborated with a 5-member team to scale the pipeline, achieving an average of 8 fps on a Google Colab dedicated GPU.

POSITIONS OF RESPONSIBILITY

- **Flutter Facilitator**   Feb 2022 - Mar 2022
  Google Developers Students Club, IIEST Shibpur   *IIEST, Shibpur*
  - As a Flutter Facilitator, I conducted five sessions to provide hands-on experience on app development with Flutter.
  - During this period, I also managed a discussion forum to inform all participants regarding doubts and career opportunities.
- **Media Lead**   Aug 2021 - Jul 2022
  Google Developers Students Club, IIEST Shibpur   *IIEST, Shibpur*
  - As a Media Lead, my primary objectives are to make sure all the sessions are conducted smoothly, with proper recording and uploading of sessions to YouTube.
  - We have successfully conducted 40+ sessions smoothly and are available to watch on our YouTube channel.
- **Video Production Manager**   Jan 2021 - Jul 2022
  CodeIIEST   *IIEST, Shibpur*
  - Developed an easy-to-follow methodology for Recording, Editing, and Uploading the CodeIIEST Sessions to YouTube
- **Video Editor**   Sept 2020 - Jan 2021
  Academic Society of Computer Engineers   *IIEST, Shibpur*
  - Edited 12 ASCE Session Recordings of "The Tech Talk" using Premiere Pro, for YouTube Uploads