

Abhiroop Mukherjee

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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** IEST 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 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** IEST 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** IEST 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** IEST 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, IEST Shibpur IEST, 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, IEST Shibpur IEST, 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
CodeIEST IEST, Shibpur
 - Developed an easy-to-follow methodology for Recording, Editing, and Uploading the CodeIEST Sessions to YouTube
- **Video Editor** Sept 2020 - Jan 2021
Academic Society of Computer Engineers IEST, Shibpur
 - Edited 12 ASCE Session Recordings of “The Tech Talk” using Premiere Pro, for YouTube Uploads

AWARDS

- 3rd Position, Google Build and Blog Hackathon, Hyderabad - Nov 2025
- 1st Position, Brain Dead, ML Hackathon by ASCE-IEST - Mar 2023
- 284th Rank, Amazon ML Challenge - Aug 2021
- 3176th Rank, Google Kickstart Round D - Jul 2021

CERTIFICATIONS

- Java Programming for Complete Beginners - Udemy, Jun 2025
- Basics of Quantum Information - IBM, Aug 2024
- Database Foundations: Intro to Databases - LinkedIn, Aug 2024
- Learning End-to-End Testing with Jest - LinkedIn, Aug 2024
- Node.js Essentials - O'Reilly, Aug 2024
- Google Cybersecurity - O'Reilly, Aug 2024
- React: Creating and Hosting a Full Stack Site - LinkedIn, Apr 2024
- Learning Docker - LinkedIn, Aug 2024
- Scrum: The Basics - LinkedIn, Jan 2021
- Accounting Foundations - LinkedIn, Jan 2021
- Getting Started with Deep Learning - NVIDIA, Jan 2021
- Google IT Support Specialization - LinkedIn, Aug 2020