

# DEBMALYA SUR

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## EDUCATION

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### Indian Institute of Technology, Dhanbad (IIT Dhanbad)

Master of Technology in Computer Science and Engineering | CGPA : 9.26

2022 – 2024

### Government College of Engineering & Ceramic Technology, Kolkata

Bachelor of Technology in Computer Science and Engineering | CGPA : 9.87

2018 – 2022

## SKILLS

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**Business Skill** Data Analysis and Interpretation, Digital Marketing, Market Research, Project Management

**Technical Skill** C++, C, Python, DSA, REST API, Backend, Problem Solving, Agile Development

## PROFESSIONAL EXPERIENCE

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### Senior Engineer @ Samsung Research Institute Bangalore (SRIB)

July 2024 - Present

- Enhancing Samsung's user interface through computer vision-based innovations for improved user experience.
- Analyzing large-scale datasets to derive actionable insights and implementing optimized deep learning models for on-device applications.

### Research Intern @ Samsung Research Institute Bangalore (SRIB)

June 2023 - Aug 2023

- Collaborated with the OnDevice AI team to optimize render thread performance, focusing on reducing latency and improving device responsiveness.
- Designed and implemented a Huffman Encoding-based texture optimization algorithm, achieving a compression ratio of 93%.

## BUSINESS PROJECTS

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- **Strategic Meta Marketer @ KD Collections.** KD Collections is an American Diamond jewellery startup. There I worked as the strategic meta marketer with the object to grow their meta page with constraint budget. Successfully run the engagement ads with 338K reach, 21 rs CPM and 550K impression.
- **CMO @ Astro Vastu Counselling.** Astro Vastu Counselling is a service-based astrological startup which is currently in its initial phase. I am working with the brand closely and helping them for the social media marketing as well as business decisions.

## TECHNICAL PROJECTS

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- **Baud News.** Built an user-specific news web application. News are sent in the personalized manner.
- **Smart Attendance System.** Built a ML based IoT project to automate the attendance taking procedure.

## RESEARCH WORK

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**A Clustered Federated Learning approach for non-Independent and Identically distributed data** (communicated to journal of *Engineering Applications of Artificial Intelligence* under *Elsevier* publication) –

- Contributed on the emerging technology Clustered Federated Learning under the domain of Internet of Medical Things (IoMT), where the non-IID data is the most relevant data.
- The objective of this research was to contribute an architecture which would be communication efficient and scalable as well as works efficiently for non-IID data.
- The research work concluded its findings after successfully executing an extensive testing on synthetic dataset.