

Sagnik Sarkar

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EDUCATION

- **National Institute of Technology Hamirpur** Hamirpur, India
Master of Technology in Computer Science and Engineering; GPA: 8.86 Sept 2020 - July 2022
- **University Visvesvaraya College of Engineering** Bengaluru, India
Bachelor of Engineering in Electronics and Communications Engineering; First Division Aug 2014 - June 2018

EXPERIENCE

- **Samsung Data Systems (Samsung SDSI) (Currently in SIEL Noida)** Noida, Delhi NCR
Solution Consultant / Management Innovation Team (MIS) 18th April 2023 - Today
 - **Analytics:** Gathered and Analysed a humongous amount of data from all over the manufacturing unit of SIEL Noida on a daily basis on **MySQL, Oracle Database and Snowflake SQL**. Identified and coordinated with Senior Consultants, Managers, and Expats regarding issues and consulted with the team to resolve the same within a minimum duration as possible.
 - **MES and ERP Support and Consulting:** Provided expert advice and support to SIEL Noida. Currently managing MES so that production and business run smoothly and efficiently to make the production loss as minimal as possible. Also overhauled several pre-existing automated processes with new and efficient methods.
 - **RPA Support:** Overhauled several old processes with new and better RPA and algorithms. Saved a ton of manpower by automating manual works of the Finance Department, Plant Process and Logistics departments using **Python, Brity RPA, Javascript and MySQL**
- **Samsung Data Systems (Samsung SDSI)** Gurugram, Delhi NCR
Solution Developer (Senior Executive) / Development Team (previously DevOps Team) 9th May 2022 - 18th April
 - **Software Developer:** Acted as one of the key players in developing the frontend of the cloud-based multi-million dollar project **Cloud MES**. Monitored and suggested using the **8-bit architecture** in the project frontend as well as the backend to avoid memory wastage, thus **saving cloud deployment costs** of clients. Developed a few special functional semaphores that are acting as the backbone for a few modules in this project (16 Sprints successfully completed and delivered with **89.29(EX)** rating from HQ and client). Updated it to **Cloud MES v2**. Updated a few APIs with new ones. The v2 version shows significant improvement in the project over previous versions(6 Sprints successfully completed)
 - **MDM Generator (Admin Panel for Cloud MES)** Created an Admin Panel for the Cloud MES Software where users or admin can fully control and monitor the visibility of the data in the software and use them as per need(10 Sprint successfully completed and delivered with **84 (VG)** rating from HQ and client). Done extensive code reviews (avg. 7 per week) so that the bugs can be reduced significantly. Reviewed and deployed code efficiently. Performed **CI/CD** pipeline on a regular basis in the project
- **Samsung Data Systems (Samsung SDSI)** Gurugram, Delhi NCR
Developer Intern 1st Feb 2022 - 8th May 2022
 - **Developer (Frontend):** Cleared Software Advance Test which is one of the toughest tests for entering Samsung
- **Almond Groups** Remote
Research and Development Intern June 2021 - Aug 2021
 - **Finding Flaws:** Helped a couple of companies find flaws in their website which may affect their value
 - **Decision Making:** Helped a couple of Multinational brands like **Longchamp** find their feasibility of opening boutiques in the Indian market
- **F2S** Remote
Machine Learning Intern May 2021 - June 2021
 - **Data Analysis:** Coordinated with data analyst in extracting and loading data from multiple data warehouses
 - **Improved Accuracy:** Remodeled existing model of F2S to improve the accuracy of the pre-existing model from **92%** to **96.49%**

SKILLS

- **Data Analysis:** Used MySQL and Oracle DB to analyze huge data. Wrote scripts in Python to streamline the process
- **Collaborative:** Collaborated with Samsung HQ to develop CLOUD MES and currently supporting the same at SIEL
- **Problem-Solving:** Automated several processes at SIEL. One of the key players in developing CLOUD MES at SDS
- **Software:** Used GIT to monitor and approve pull requests, Vue JS, Python, MySQL, MES,

INTERNATIONAL PUBLICATIONS

- **Combining the Knowledge Graph and T5 in Question Answering:** (Published) In 2nd International Conference on Sentiment Analysis and Deep Learning under the supervision of Dr. Pardeep Singh at NIT Hamirpur
Result: Optimized the architecture which was a huge improvement over **Google BERT, T5 Base**, and other models available as it is compact and can be deployed anywhere with limited spacial constraints.
Link: Combining the Knowledge Graph and T5 in Question Answering in NLP
- **The task of Question Answering in NLP A Systematic Literature Review:** (Published) In INDO-Hungary Fifth International Conference **ICRIC-2022 Volume 2** under the supervision of Dr. Pardeep Singh at NIT Hamirpur
Link: The Task of Question Answering in NLP: A Comprehensive Review

PROJECTS

- **CLOUD MES** Samsung SDS
Software Developer 10th May 2022 - 18th April 2022
 - **Frontend Developer:** Acted as one of the key players in developing the frontend of the cloud-based multi-million dollar project **Cloud MES**. The project is being used by various subsidiaries like Microsoft and Samsung to maintain their business process. Being a Frontend Developer was part of the decision-making in the project. Reviewed and deployed multiple codes so that bugs can be minimized. Was part of daily Scrum Team
- **MDM Generator** Samsung SDS
Software Developer 4th Jan 2022 - 18th April 2022
 - **Frontend Developer:** Created an Admin Panel for the Cloud MES Software where users or admin can fully control and monitor the visibility of the data in the software and use them as per need (10 Sprint successfully completed and delivered with **84 (VG)** rating from HQ and client). Done extensive code reviews (avg. 7 per week) so that the bugs can be reduced significantly. Reviewed and deployed code efficiently
- **KT5** NIT Hamirpur
Developer and Architect 5th May 2021 - 9th May 2022
 - **NLP Model Developer and Architect:** Was the brain behind developing the KT5 model. This model saw significant improvement over Google BERT, Graph Models, and T5 Base. Pipelined the basic Knowledge Graph with T5 Base which removed the unnecessary complexity and space from these models. The model has a significantly better F1 score with limited resource constraints.
- **SwiftPay** UVCE
Developer and Architect 5th Jan 2018 - 9th May 2018
 - **Developer:** Created a universal and secured payment process that can be used by everyone. The project revolved around the data-gathering capability of microcontroller and Image recognition technology. NoSQL database is used (Firebase NoSQL) to maintain each transaction. Microcontroller data is encoded and decoded using Huffman Coding so that it is highly secured. Received appreciation from Department of ECE UVCE Bangalore

HONORS AND AWARDS

- **Winner of Bronze medal** for NFL Big Data Super Bowl 2021 Prediction 2021 by Kaggle and NFL USA
- Hackerrank Coder: Python 4* and SQL 5* at Hackerrank.
- Lead a team in Genetic Engineering Attribution Challenge organized by ALTLABS: **Global Ranking: 298**
- Lead a team in Flu Shot Learning: **Global Ranking: 376**
- Wireless Sensor Networks Workshop: Organised by **IIT Delhi** and secured 3rd position
- Prodigy Case Study: Participation Certificate in Prodigy Case Study at **IIM Bangalore** 2020, 2021
- Illuminate Case Study: Participation Certificate in Illuminate Case Study at **IIM Calcutta** 2021
- **CCRT** National Visual Arts and Painting Scholar and National Level Swimming Champion

POSITION OF RESPONSIBILITIES

- **Head of the Training and Placement Cell for PG at NIT Hamirpur** NIT Hamirpur, India
Head Placement Co-ordinator of NIT Hamirpur Feb 2021 - July 2022
 - **Contacting Recruiters and HRs of various companies:** Contacted various Recruiters and HRs and helped NIT Hamirpur to increase the placement. Improved the Recruiter and College relations. More than 150 companies are contacted and brought to campus for recruitment. Improved recruitment by a huge margin around **95%** than the previous year.
 - **Brochure Creation:** Created the entire Placement brochure of NIT Hamirpur for the recruitment season of 2022
 - **Placement:** Helped around 1500 candidates to get offers from the college both Domestic as well as International offers
- **Class Representative** NIT Hamirpur, India
Class Representative of M.Tech Department of CSE (class of 2022) Sep 2020 - July 2022