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## EDUCATION

- IIT Kharagpur, West Bengal, India (Spring 2014 - Spring 2017)**      **CGPA: 9.69/10**      **Guide: Prof. Mamata Jenamani**  
MS by Research- Industrial and Systems Engineering with focus on Research in ML and NLP
- SIT, Bhubaneswar (Autumn 2008 - Spring 2012)**      **CGPA: 8.27/10**  
Bachelors in Technology in Information Technology

## CONTINUOUS LEARNINGS OR EXECUTIVE EDUCATIONS

- Recently Completed *Certificate Program in Healthcare Management* from **ISB Hyderabad**, Duration 3 Months
- Attended multiple **Generative AI, Large Language Model** specific conferences and training online and offline.
- Attended **IIIT-H Advanced Summer School on NLP (IASNLP-2016)** at **IIIT Hyderabad** from 20th June to 4th July, 2016.
- GIAN workshop on '*Introduction to NLP*' at **IIT, Patna**, 2016

## PROFESSIONAL EXPERIENCE

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### **SyTrue Inc. later ClaimLogiq now Apixio (Jan'18-Dec'23)**

**ROLE: HEAD OF DATA SCIENCE RESEARCH (Apr'22-Dec'23)**

*Responsibilities:* Spearheaded Research & Development of NLP modules, orchestrating the implementation of cutting-edge ML algorithms & Deep Learning libraries & Large Language Models on Azure cloud. Implemented a complete Design of Experiments (DOE) pipeline, ensuring optimal efficiency throughout the project lifecycle. Created a cost-effective cloud storage strategy, enhancing the overall cost & efficiency of the NLP pipeline on Azure. Did 60-70% coding (Python stack) of the whole project & multiple POCs on Azure. Took care of the project & stakeholder communication. Took care of Project planning, WBS & execution. Lead & co-ordinated with Data Scientist & SMEs. Well versed in utilising **SNOMED, RxNorm, ICD-9, ICD-10, NCIt, LOINC**.

*Value Added:* Successfully established a cost effective end-to-end data-driven NLP pipeline on Azure (MLOps), showcasing innovation. Notably, created a comprehensive framework for Data Selection & Annotation, Quality Control (QC), Experiments Tracking & Training, seamlessly integrated into the serverless deployment process. Created Project management strategy for Data Science Team.

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**ROLE: Senior CLINICAL DATA SCIENTIST (Feb'21-March'22)**

*Responsibilities:* Innovated multiple tools, integrated into the existing pipeline, automating diverse workflows for enhanced efficiency. Created an academy from scratch, solidifying the company's commitment to continuous learning & development. Co-ordinated with Data Scientists & SMEs. Point of contact and communication management for Multiple clients. Created and enhanced multiple clinical modules like Culture, Chemotherapy, Procedures, Encephalopathy etc. Created Semi-Automated approach for term expansion via Rx-Norm. Contributed to Job Aid analysis and implementation for multiple diagnosis per Job-Aid. Training of incoming employees and clients. Well versed in utilising **SNOMED, RxNorm, ICD-9, ICD-10, NCIt, LOINC**.

*Value Added:* Multiples tools introduced into existing pipelines to automate various workflows. Created a product training academy from scratch for the company. Recognized as the Go-To Person for research and implementation expertise within the company. Proficient in conducting thorough theoretical analysis, gathering new clinical knowledge required to create new modules. Establishment of new clinical concepts and implementation within the SyTrue environment or creation of new to be integrated POCs.

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**ROLE: CLINICAL DATA SCIENTIST (Jan'18-Feb'21)**

*Responsibilities:* Research & Development of Healthcare specific NLP modules. Point of contact and communication management for multiple clients. Created automations for multiple processes like Goldset analysis and rule improvements.

*Value Added:* Multiples POCs for data Cleaning, modelling, & deployment. Process improvement & Automations.

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### **Consultant: Data Science & NLP, Episource India Pvt. Ltd. now acquired by Optum (Jan'17-Jan'18)**

Project: Processing Clinical Text using NLP & AWS in scalable fashion (NO-OPs Team)

*Responsibilities:* ETL & deployment for Domain Data into Dockerized Semantic DB, API for query, Creating Gold- standard Data from annotation using BRAT, Creating & deploying ML & NLP solutions on AWS. Utilised **SNOMED, ICD-9, ICD-10**

*Value Added:* Multiple POCs around AWS for cost minimization for serverless AWS architecture

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### **Junior Research Fellow, IIT Kharagpur (Sep'14-Jan'17)**

Project: Urban Governance: Sustainable Policies & Implementation (USP)

*Responsibilities:* User behaviour modelling using log data ([paper](#)) & crowd sourced citizen data analysis using NLP techniques ([paper](#))

*Value Added:* Handled end to end procurement of Bare-Metal server for high-performance computing.

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### **Project Engineer, Wipro Technologies (Mar'13-Sep'14)**

Project 2: Research & Development, Wipro CTO office

*Skills Used:* Semantic web, RDF, Ontology, Protégé for NLP related automation. Data Annotation strategy for document understanding.

*Value added:* Contributed in solving master data replication problem

Project 1: Java-J2EE Developer. US bases Bank-Global Corporate Trust System

*Skills Used:* Liferay, Spring, J2EE, HTML, CSS, JavaScript, Java, MVC, SQL, Ajax

*Value added:* Wrote Automation script which saved 2 Hrs/employee/day. Wrote Case study for the project.

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## **Coach (Instructor), Society of Nature, Education & Health (SNEH) (July'12-Jan'13)**

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*Responsibilities:* Trainer for Language C & Web Designing (HTML, CSS, JavaScript).

*Value added:* Designed curriculum for complete web design & development using Java Technologies

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### **PUBLICATIONS ( [SCHOLAR LINK](#) )**

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- Kumar, V., & Jenamani, M. (2018, January). Identification & Prioritization of urban issues from Smart City data. In 2018 International Conference on Smart City & Emerging Technology (ICSCET) (pp. 1-7). IEEE. ([Link](#))
  - Kumar, V., & Jenamani, M. (2017). Context preserving navigation redesign under Markovian assumption for responsive websites. *Electronic Commerce Research & Applications*, 21, 65-78. ([Link](#))
  - Umasankar Das, Girija Prasad Mohapatra & Vinay Kumar (2013). "Design of a Recommendation Model Considering Semantic Analysis". *International Journal of Computer Applications* 77(1): 45-49. ([Link](#))
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### **ACADEMIC PROJECTS**

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#### **IIT Kharagpur**

- Context preserving responsive navigation redesign under Markovian assumption. (Published in ECRA [Link](#))
- Subjectivity Analysis for Hashtag, tweets, YouTube comments, newspaper articles & sub classification tasks.
- Aspect Based Sentiment Analysis for identifying citizen's concern from crowd sourced governance ideas.
- Word2vec based semantic recommendation model (Data Set: Amazon) at IASNLP-2016. (IIIT-HYD)
- Churn Prediction for bank data using Artificial Neural Network (IIT – Kharagpur 2017).
- Bank Marketing Data Analysis using R (IIT – Kharagpur 2016).

#### **Silicon Institute of Technology**

- Designed recommendation model considering semantic analysis. (Published in IJCA)
  - Advertising in Vertical Social Network.
  - Developed & deployed college tech-fest websites live, single-handedly in 15 Hrs.
  - Lead a 16-member team for web-development for 3 years during B.Tech. ([www.vgyan.com](http://www.vgyan.com))
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### **ADDITIONAL EXPERIENCE & AWARDS**

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- Organizer for AI & ML based largest meetup in Bangalore (Meetup [Link](#)). Regularly organizing events & keeping myself updated with the latest tech/solution/architecture/thought process in AI.
  - Reviewer at *Electronic Commerce Research & Applications*, Elsevier.
  - Program Committee member at International Conference on Information Society & Smart Cities. Cambridge, UK.
  - Awarded Junior Research Fellowship from 22nd Sep, 2014-2017 from IIT, Kharagpur.
  - Received accolades for Academic Assistance in short term summer course on "OOP & Algo. in JAVA" & Web Data Analytics using R & Python at IIT, Kharagpur.
  - Volunteered for teaching "Basic computing, C programming & Web-Design" to underprivileged students at hometown & for teaching Language C to 60 1st year students during bachelors.
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### **INVITED TALKS / WORKSHOP DELIVERED**

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- End-to-End NLP on Cloud, AI-ML Meetup, Microsoft Reactor, Bangalore, India, (Jan, 2024)
  - Healthcare economics and Prospects, Sindhi PU College, Bangalore, India (July 28, 2021)
  - Identification and prioritisation of Urban issues from Smart City Data, IEEE Smart city Conference, Mumbai, India (2018)
  - Hitchhiker's guide to using Neo4J: Trials & Tribulations of deploying a scalable graph API on Cloud at [PyData Delhi](#) (Sep' 2-3, 2017)
  - Expert Talk on Machine Learning and NLP (July' 10 – 14, 2018) and on Semantic Web, Ontology at Recent Research Trends in Social Media & Network Analysis (Mar' 26 – 28, 2017), at U.I.E.T, Panjab University, Chandigarh, India
  - Web Log Analysis & R tutorial at Web Data Analytics using R & Python- IIT, Kharagpur, India (September 6-10, 2016)
  - C Project at C & C# Rapid Projects held at UCET, Vinoba Bhave University, Hazaribagh, India (March 18-21, 2013)
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### **TRAINING / WORKSHOP ATTENDED**

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- Regularly attending training in Azure for AZ, DP & AI Series.
  - Attended Rootconf 2017 & The Fifth Elephant 2017 organised by Hasgeek in Bangalore, India.
  - Training in Big-Data & certification in Hadoop from [skillspeed.com](http://skillspeed.com).
  - 'Supply Chain Network-Modelling & Analysis' & 'Data Analytics with SAS' & 'Applied Machine Learning' at IIT, Kharagpur, India.
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### **LANGUAGE AND TECHNOLOGIES**

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**Languages/Tools/Framework/Cloud Environments:** Python, C, Java, R, AWS, Azure, Docker, SQL, GraphDB, Scikit Learn, TextBlob, NLTK, Neo4j, Keras, Tensorflow, PyTorch, Github, Fogbugz, Jira, VectorDB: Pinecone, ChromaDB, OpenAI API, Langchain, Hugging Face, RAG

**Healthcare Specific Knowledge:** HIPAA, SNOMED, RxNorm, ICD-9, ICD-10, NCIt, LOINC

**Area of Interest:** Natural Language Processing, Machine Learning, Optimization, Operations Research & Statistics, Healthcare

**Hobbies:** Organizing Meetups, I like to swim, play Lawn Tennis, Table tennis, Badminton, Volleyball. In my free time, I am an **analogue**. I like to share my knowledge at different conferences, meetups and with underprivileged students as and when I get an opportunity.

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