

Ansuman Sasmal

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EDUCATION

Syracuse University, School of Engineering and Computer Science (Syracuse, NY, USA)

August 2021 – May 2023

Master of Science in Computer Science

Kalinga Institute of Industrial Technology (Bhubaneswar, India)

June 2014 – May 2018

Bachelor of Engineering in Computer Science & Engineering

TECHNICAL SKILLS

Programming tools: Python, Java, C#, HTML, JavaScript, Node.js, Angular.js, Typescript, Vue.js, R, Apache Hadoop, Kafka, Airflow

Cloud Services: AWS (SageMaker, S3, EMR, Redshift, Lambda, EC2), Docker, Git, Jenkins, GitHub, Azure, GCP, Heroku

Databases and MQ: SQL (MySQL, Postgres), NoSQL (MongoDB, Redis), ActiveMQ, Firebase.

Data Science and ML/DL: Regression, Decision Tree, Random Forest, Ensemble, Naive Bayes, KNN, SVM, Forecasting, Social media NLP Pattern Analysis, Dimensionality Reduction.

Framework: Spring, Spring boot, Spring Core, Spring Security, ASP.NET MVC, FastAPI, Flask, Consul

PROFESSIONAL EXPERIENCE

Research Assistant, SU - Martin J. Whitman School of Management (Syracuse, New York)

November 2022 – June 2023

- Implemented advanced data cleaning techniques and preprocessing algorithms resulting in a **15% reduction** in noise and irrelevant content from the Twitter dataset, leading to a cleaner and more reliable dataset for sentiment analysis.
- Developed a sentiment analysis model utilizing **Bert-Base-Uncased-Go-Emotion model**, achieving an accuracy of **96.14%** on a labeled dataset of 10,000 tweets. The model outperformed traditional machine learning algorithms by 10% and demonstrated superior ability to capture nuanced sentiments in product purchasing behavior.
- Designed and implemented an **Apache Kafka**-based pipeline for continuous ingestion and processing of live tweets. Achieved **sub-500ms processing latency**, enabling timely sentiment analysis and swift response to emerging trends.

Software Engineer Intern, Our Ability, Inc (Albany, New York)

May 2022 – November 2022

- Developed REST APIs to auto-populate form fields, **reducing completion time by 80%**. Implemented an accessible UI for visually impaired users, resulting in a **20% increase in engagement**.
- Deployed a **NER model in a chatbot**, accurately identifying user intents and improving response time, **leading to a 40% increase in usage**.

Software Engineer, Zycus Infotech PVT LTD (Bengaluru, India)

June 2018 – June 2021

- Collaborated with a team of 8 to construct an **invoice categorization system** using in-house OCR technology, achieving 96% data extraction accuracy.
- Developed cross-product integration API using **Redis cache management** to **reduce system latency by 40%** and boost scalability for **20+ enterprise** clients.
- Built fraud detection tool using Random Forest algorithm with **95% prediction accuracy** as part of a team of 7, reducing fraudulent activities in the system.
- Utilized **Spring Framework** to decompose a monolithic application into microservices, resulting in a **52% performance improvement** and enhanced processing of supplier data.

Academic Projects

Job Notification System:

May 2023 – June 2023

- Developed a scalable distributed backend for a Job Notification system using **Spring Boot**. Implemented efficient **REST API endpoints** to retrieve job links from the company's career page, optimizing data retrieval with **MongoDB** for enhanced performance and responsiveness.
- Implemented **Tesseract OCR** (Optical Character Recognition) to extract relevant data from resumes and perform skillset matching with job descriptions. This feature enabled the generation of personalized job recommendations tailored to the applicant's skills and qualifications. Leveraged **Apache Kafka** for seamless job alerts and notifications.

Text Summarizer:

May 2023 – June 2023

- Developed and deployed an end-to-end NLP project, including data processing, modeling, and prediction pipeline.
- Implemented CI/CD deployment of a text summarization tool using **Google Pegasus-XSUM on Amazon EC2**, leveraging GitHub Actions.

Resume Parser:

April 2023 – May 2023

- Developed **Flask** application for resume parsing and information extraction, Used NLP techniques to categorize the information.
- Integrated LinkedIn official APIs** into the application, enabling seamless retrieval of job details for skill and job comparison. Hosted application on GitHub using **Heroku** for public access.

LUIS chatbot for job search:

May 2022 – August 2022

- Implemented **Azure Cognitive Services' Language Understanding (LUIS)** to enhance chatbot comprehension and extract job-related information from user queries.
- Integrated job search APIs to display relevant job postings based on user preferences, providing a seamless job search experience within the chatbot.