

Ansuman Sasmal

Jersey City, NJ 07307 | +1 315-878-9994 | asasmal@syr.edu | [linkedin.com/in/ansuman-sasmal/](https://www.linkedin.com/in/ansuman-sasmal/) | github.com/Alphapara97

TECHNICAL SKILLS

Programming tools: Python, Java, C#, JavaScript, React, Node.js, Angular.js, Tableau, TypeScript, PowerBI
Cloud Services: AWS (SageMaker, S3, EMR, Redshift, Lambda, EC2), Docker, Git, Jenkins, GitHub, Azure, GCP, Heroku
Databases and MQ: MySQL, Postgres, MongoDB, Redis, ActiveMQ, Oracle, Liquibase, Elasticsearch
Libraries: HuggingFace, TensorFlow, Keras, PyTorch, scikit-learn, Pandas, Numpy, NLTK, spaCy, Matplotlib, PySpark
Tools: SQL Trace, Dynatrace, ASP.NET, Postman, Databricks, Jupyter Notebook, PyCharm, VSCode, Apache Hadoop, Apache Kafka, Apache Airflow, Apache Spark, Apache Cassandra, Apache Hudi, Mlflow, Kubeflow, Flask, bitbucket, Azure Data Factory, Terraform, Microsoft Excel, Kubernetes, JUnit, Mockito, NUnit

EXPERIENCE

- Research Assistant (Data Engineer), SU – [The C4 Lab](#)** (Syracuse, New York) *November 2022 – Present*
- Improved data quality by implementing ETL processes, reducing Twitter dataset noise by 15% for enhanced sentiment analysis.
 - Enhanced sentiment analysis with a Bert-Base-Uncased-Go-Emotion model, achieving 96.14% accuracy on 100,000 labeled tweets, outperforming traditional ML by 10%.
 - Engineered a real-time Apache Kafka pipeline for sub-500ms tweet ingestion and sentiment analysis, facilitating rapid trend analysis.
 - Engineered complex and efficient multi-layered SQL queries processing >6B rows of data via Microsoft Azure Databricks, creating a robust Climate Demographics Table and visualized it in a County Level Insights Dashboard using PowerBI.
 - Skills:** Python, Apache Kafka, Flask, Apache Airflow, Hugging Face, predictive analytics, data mining, query optimization
- Software Engineer Intern, Our Ability, Inc** (Albany, New York) *May 2022 – November 2022*
- Utilized ASP.NET to automate form field population, reducing completion time by 80%. Designed an accessible UI following WCAG Level AA guidelines, boosting engagement by 20% for differently-abled users.
 - Integrated a NER model through Microsoft Bot Framework, achieving a 40% usage increase.
 - Collaborated with visually impaired individuals and UI team to enhance chatbot's understanding of user interactions. Prioritized a refined user experience, particularly benefiting differently-abled users.
 - Skills:** ASP.NET, UI/UX Design, REST API, Azure AI Bot Service, Azure Cloud Services, query optimization
- Software Engineer, Zycus Infotech PVT LTD** (Bengaluru, India) *June 2018 – June 2021*
- Collaborated within an 8-member team to develop an invoice categorization system using in-house OCR (Optical Character Recognition) technology, achieving an impressive 96% data extraction accuracy. Leveraged LSTM, to categorize invoices into predefined categories. Resulted in eliminating duplicate invoice detections.
 - Collaborated within a 7-member team in building a fraud detection tool using the Random Forest algorithm, achieving an exceptional 95% prediction accuracy. Resulted in enhanced system integrity, identifying phantom vendors and unusual buying patterns.
 - Engineered cross-product integration APIs with integrated Redis cache management, optimizing system efficiency and scalability. Reduced API response time from 1.4 seconds to 0.12 seconds, enhancing performance for 20+ enterprise clients.
 - Facilitated cross-team collaboration, gathering valuable user insights from marketing, sales, product teams and stakeholders. Applied feedback for iterative system improvements, enhancing the overall user experience.
 - Skills:** Python, Java, Spring Boot, Redis, LSTM, NLTK, PostgreSQL, MongoDB, Swagger, Postman, Apache Kafka, SaaS

CODING PROJECTS

- Job Notification System:** *May 2023 – June 2023*
- Implemented Tesseract OCR (Optical Character Recognition) to extract relevant data from resumes. Enabled skillset matching with job descriptions, generating personalized job recommendations based on applicant qualifications.
 - Developed a scalable distributed backend using Spring Boot for a Job Notification system. Implemented efficient REST API endpoints to retrieve job links from the company's career page, enhancing performance and responsiveness.
 - Skills:** Spring, Apache Kafka, MongoDB, Swagger, Python, Tesseract OCR
- Text Summarizer:** *May 2023 – June 2023*
- Developed and deployed an efficient text summarization tool utilizing Google Pegasus-XSUM, streamlining the process of transforming extensive text documents into succinct summaries.
 - Skills:** Google Pegasus-XSUM, Amazon EC2, GitHub Actions, Python, NLTK, Hugging Face, Flask
- LUIS chatbot for job search:** *May 2022 – August 2022*
- Integrated Azure Cognitive Services' Language Understanding (LUIS) for precise job-related query comprehension. Utilized ASP.NET to display personalized job postings, enhancing the user's job search experience.
 - Skills:** Azure Cognitive Services (LUIS), Azure App Service, ASP.NET, C#, Visual Studio

EDUCATION

- Syracuse University, School of Engineering and Computer Science** (Syracuse, NY, USA) *May 2023*
Master of Science in Computer Science
- Kalinga Institute of Industrial Technology** (Bhubaneswar, India) *May 2018*
Bachelor of Engineering in Computer Science & Engineering