ARUN SINGH

PROFESSIONAL SUMMARY

With around 20 years of experience, I am a seasoned technical specialist specializing in Data Science and Business Analysis within the ERS team. I have extensive expertise in Generative AI, AIML, LLM, and various machine learning techniques, including classification, regression, anomaly detection, sentiment analysis, and time series forecasting. Additionally, I am skilled in ETL processes, Python development, Docker, Kubernetes, and Git. I have successfully worked on use cases leveraging Generative AI, such as Change Impact Analysis, code migration, and security assessments. My proficiency with data science libraries like scikit-learn, Pandas, NumPy, and Matplotlib, coupled with my experience in internal process automation, allows me to drive solutions for production and development workloads. I excel in identifying new business opportunities and proposing data-driven solutions to address diverse use cases.

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EXPERIENCE

Senior Technical Architect, 12/2021 - Current
HCL Technologies - Bangalore, KARNATAKA

- Taking a role for Generative AI Architect
- Generate an use case IBM DataStage code to DBT(Data Build Tool) migration for Big Query Data warehouse with help of Nvidia Nemotron 70 B model
- Generate a use case for TIBCO to Mulesoft Conversion
- Generate Use case from .net to Java conversion
- Generate use case for modernization like java lower version to Java latest version
- Solving performance issues like LLM Call Volume, correct agent as per use case
- Active contribution to inhouse application to support software development life cycle use cases
- Requirement Generation like user stories generation
- Development use cases like code generation, Code review, code migration, Code clone detection
- Test case generation, grouping, optimization, and duplicate defect detection using Genai-like models
- Security and Vulnerability assessment: Implemented all the LLM-guards
- Genai-like models -Openai, Gemini,LLam3,IBM Watsonx and other opesource model
- Identifying business opportunities and creating Proof of Concepts (POCs) for clients
- Implemented LLM testing with Fiddler auditor and generated FAQs
- Implemented MLops in Mlflow for in-house applications
- Implemented deep checks for data integrity, train-test validation, and model evaluation
- Working on AION (in-house ML tool) for feature enhancement
- Demonstrated various use cases and increased business for HCL departments
- Assisted internal teams in identifying ML use cases and business opportunities
- Developed testing mechanisms for LLM models
- Deployed deep checks library to evaluate ML model performance before production
- Analyzed promotion data with sentiment analysis for HR team
- Identified abnormal usage for Azure billing using DBscan
- Presented document summarization using LLM models to internal clients
- POC for Google team to detect duplicate defects in Android release
- Productivity forecasting for QA engineers on product and project levels

CONTACT

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CORE QUALIFICATIONS

- LLM
- Prompt Engineering
- OpenSearch
- Hybrid Search
- Graph Search
- PostgreSQL
- ETL
- GUI
- Linux
- MySQL
- Python
- Pandas
- Docker
- GIT
- Amazon Web Services (Aws)
- Azure Devops
- Langraph
- Agentic AI

- Xapp deployment with anomaly detection for Meta
- QnA Generator use case presentation
- Helped clients identify abnormalities in core KPIs and deployed explainability tools for classification and time series data analysis
- Demonstrated technical skills in PostgreSQL, Pytest-bdd, Python, and Azure Data Factory
- Consumed data from old finance static API and ingested it into a data warehouse staging layer in PostgreSQL.

SR Manager,Python Developer, Automation Lead, Devops Engineer, Delivery Manager And/or Project Manager, 11/2013 - 12/2021
Huawei Telecom India Pvt. Ltd - Bangalore
- Hands on experience working with AWS
- Prepare the various complex validation scripts for NRM (network resource Management) data migration which cannot be handled manually
- Develop the ETL in Python using corresponding libraries like pandas, Numpy, XmlParser etc
- Working on ETL in python, Pandas data frame from XML and CSV processing
- Expertise in automating business scenario to increase productivity and efficiency of RF engineering team
- Hands on experience in Agile Mythology and expertise in implementing to automation team for better efficiency and easy tracking of tasks
- Developed a tool/framework using Python to automate different department's business scenarios
- Worked as an "automation & domain expert" to increase the efficiency by using automation and/or resolve issues at program level project
- Used different technologies/libraries in Python like - Pandas, Matplotlib and TKinter
- Hands on experience in integrating Python tool with MySQL to reuse data in future and develop business patterns
- Expertise in gathering business requirements and transforming them to technical requirements for developers
- Managing the defects using JIRA and deciding/maintaining the priority for same
- Project Name - Huawei internal platform OWS, Scripting for file handling, ETL and rule development, Automate the Manual complex task as per business logic through Python
- Deliver 10 ETL using Python, Pandas, XML parser
- Follow agile flow with Requirement Analysis, Development, Peer review, testing for all +ve and -ve cases Professional Experience - Huawei Technologies Project Name - Internal Automation Drive.

Sr Software Engineer, 07/2008 - 11/2013
ZTE Telecom India Pvt Ltd - Gurgaon
- Developed offline tools for KPI monitoring using python and MySQL
- Developed and configured various dashboard, custom Reports and Report folders for different user profiles based on need in organization.

Sr RF Engineer, 09/2006 - 07/2008
Alcatel-lucent - Hyderabad
- Daily performance monitoring which mainly included monitoring and troubleshooting high Drop Call Rate, Established Call Failure Rate for Origination and Termination, RF Failure Rate for Origination and Termination, Origination/Termination Blocking Rates, high SHO Percentage per sector carrier and Semi SHO failure rate and finished RF ATP

RF Testing Engineer, 06/2005 - 09/2006
Wayforward Telecom Solutions - Chandigarh
- GSM RF Candidate site survey and approval from Customer.
- Drive test for network optimization

- Offering A/T for new sites as well as swap sites, drive pre/post and shows the coverage according to the predication map.
- Analyzing, troubleshooting & solving Radio Network Problems.
- LOS transmission survey for highway link and city link

ACHIEVEMENTS

- Got appreciation for automating complex migration verification from UK client in 2020.
- Best knowledge sharing contributor in Huawei
- Best Team Manager employee choice award in 2019

EDUCATION

Education	University	Specialization	Passing Year
BTech	JSS Academy of Technical Education UPTU	Electronics and Instrumentation	2005

HOBIES

Long distance Running.