# ARUN SINGH

## PROFESSIONAL SUMMARY

As a seasoned technical specialist with 19 years of experience, I have worked in the ERS team as a Data Scientist and Business Analyst. I have a strong background in leveraging Generative AI, AIML, LLM, Classification, regression, Anomaly detection, sentiment analysis, Time series forecasting, ETL, Python development, Docker, Kubernetes, and GIT. I am proficient in data science libraries such as scikit-learn, Pandas, NumPy, and Matplotlib. Additionally, I have expertise in internal process automation and are critical for on-site production and development workloads. My experience enables to identify new business opportunities and propose solutions for various use cases based on data types.

## EXPERIENCE

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

- Taking a role for Generative AI Architect
- 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
- 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.

## 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

**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.