

# ARUN SINGH

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## 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 am critical for on-site production and development workloads. My experience enables me to identify new business opportunities and propose solutions for various use cases based on data types.

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## EXPERIENCE

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

- Genai-like models (Openai, Gemini) used for various development use cases:
  - Code Summarization
  - Code Clone Detection
  - Code Generation
  - Unit Test Case Generation
  - Change Impact Analysis
- Test case generation, grouping, optimization, and duplicate defect detection using Genai-like models
- 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 QUALIFICATION

- LLM
- Openai
- Gemini
- Prompt Engineering
- PostgreSQL
- ETL
- GUI
- Linux
- MySQL
- Python
- Pandas
- Docker
- GIT
- Amazon Web Services (Aws)
- Azure Devops
- Confluent Kafka (beginner)
- Pytest-bdd
- Scikit Learning
- kafka

**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

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## EDUCATION

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

## HOBIES

Long distance Running, playing volleyball, already completed several ultramarathons.