RAHUL THIRUVENGADAM

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SUMMARY

Data-driven professional with 2+ years of experience in machine learning, statistical analysis, and predictive modeling. Skilled in transforming raw data into actionable insights, enabling informed decision-making. Proficient in Python, SQL, and data visualization (Tableau, Power BI). Experienced in collaborating with diverse teams to develop AI-driven solutions, automate workflows, and optimize business processes. Passionate about leveraging data science and analytics to drive efficiency and innovation.

EXPERIENCE

IT Resilience Intern **Schneider Electric**

Nov 2023 – May 2024 Ratingen, Germany

- Managed and maintained server infrastructure across European data centers, ensuring high availability and optimized network performance.
- Led cross-functional meetings to assess network architecture, device configurations, and rack layouts for resilience and consistency.
- Developed automation scripts to streamline workflows, reducing manual interventions and improving efficiency.
- Designed and executed disaster recovery simulations, analyzing system vulnerabilities and optimizing resilience strategies.

Research and Teaching Assistant **Universität Koblenz**

May 2022 – Aug 2022 Koblenz, Germany

- Assisted in course development and implemented data-driven assessment techniques to analyze student performance.
- Created performance analytics dashboards in Python and Excel, enabling data-driven insights for students and professors.
- Designed statistical reports to highlight learning patterns, facilitating course material refinement based on data-backed insights.

Digital Content Analyst **Deloitte Consulting India Private Limited**

Sep 2020 – Apr 2021 Bangalore, India

- Led legacy data archiving and migration using JiVS, ensuring seamless transition to modern databases while maintaining data integrity.
- Engineered optimized SQL queries, stored procedures, and ETL pipelines, reducing execution time by up to 45% for large-scale data transfers.
- Developed data visualizations and reports for clients, transforming raw data into actionable insights to support business decision-making.
- Worked closely with stakeholders to understand business needs, performed schema mapping and data transformation, and designed scalable data models.

CERTIFICATIONS

- Google Certified: Business Intelligence
- Data Analysis with Pandas and Python
- Ethical Hacking
- UI / UX Designing

EDUCATION

Masters in Data Science

Universität Koblenz

Apr 2021 – Sep 2024

Bachelors in Computer Science

B.M.S College of Engineering

Apr 2016 – Aug 2020

SKILLS

C++ Python R HTML CSS PHP Javascript

MySQL NoSQL SQL Server

Git Docker JiVS Tableau Power BI M365 CI/CD Spark Python Libraries

ETL Exploratory Data Analysis KPI Tracking Data Science ML AI

LANGUAGES

English C1

German A2

- Implemented data validation and reconciliation strategies, achieving over 99% accuracy in migrated records, minimizing discrepancies, and ensuring regulatory compliance.

Data Analyst Intern **Cisco Systems India Private Limited**

Jan 2020 – Jul 2020 Bangalore, India

- Performed Exploratory Data Analysis (EDA) and statistical modeling on large-scale Call Detail Records (CDRs) to uncover patterns and insights.
- Developed a machine learning pipeline using Luigi, automating data preprocessing, model training, and inference, ensuring seamless execution of prediction workflows.
- Built and trained a classifier model for call failure prediction, achieving 90% accuracy through optimized feature engineering and hyperparameter tuning.
- Designed and optimized ETL workflows, improving data ingestion, transformation, and analysis efficiency, and containerized the pipeline using Docker for scalability and production deployment with enhanced logging, error handling, and configuration management.

Research Intern **Centre for Airborne Systems (CABS) – D.R.D.O Laboratory**

Jun 2019 – Jul 2019 Bangalore, India

- Developed a real-time Automatic Speech Recognition (ASR) module for fighter pilot cockpit environments using Mozilla DeepSpeech and TensorFlow, leveraging Transfer Learning on domain-specific datasets for improved recognition in noisy, high-G conditions.
- Optimized model inference with quantization and TensorFlow Lite, enabling efficient deployment on embedded avionics systems while ensuring minimal computational overhead.
- Designed a multi-accent adaptive training pipeline, incorporating data augmentation techniques to enhance speech recognition accuracy across diverse linguistic profiles.
- Constructed a multi-accent adaptive training pipeline, integrating data augmentation techniques to improve generalization across diverse speech profiles.

THESIS

Supporting the Specification of Fairness Requirements

Universität Koblenz

Mar 2024 – Sep 2024

Developed a structured framework to integrate fairness requirements into software development, particularly in Requirements Engineering. The research introduced a Fairness Glossary to standardize definitions, a Fairness Conceptual Model inspired by security risk management frameworks to address fairness risks systematically, and an extended Fairness Requirements Template based on the MASTER template to enable structured fairness specifications. The framework was validated through real-world test cases in healthcare and finance.

STRENGTHS

Problem Solving | Analytical Thinking | Business Acumen | Collaboration | Effective Communication | Teamwork | Commitment | Adaptability

PUBLICATION

Survey On Application For Predicting Calories And Nutritional Values From Food

International Journal of Scientific & Engineering Research (IJSER), Vol. 11, Issue 4

Apr 2020

PROJECTS

PowerBI Dashboard for COVID-19 Analysis

Developed an interactive Power BI dashboard with DAX queries and data modeling to analyze COVID-19 trends, infection rates, and vaccination progress. Automated ETL workflows for real-time tracking and implemented trend forecasting and anomaly detection to support data-driven decision-making.

PowerBI Dashboard for Data Professionals Survey

Designed a Power BI dashboard to analyze industry trends, challenges, and skill preferences among data professionals. Integrated DAX queries and data modeling to enable real-time filtering, KPI tracking, and trend analysis, providing actionable insights for workforce planning.

Covid-19 Recommender System

Built a machine learning-driven recommendation system to assist government officials in making data-driven decisions on lockdown enforcement, restriction levels, and resource allocation during COVID-19. The system analyzed infection trends, hospital capacity, and mobility data to predict outbreak severity and optimize pandemic response strategies.