

# ARUNKKUMAR KARTHIKEYAN

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## EXPERIENCE:

### Robert Bosch Power Tools GmbH

Leinfelden-Echterdingen, Germany

#### Data Analyst

Oct 2023 – Mar 2024

- Developed Dockerized web applications for Bosch Measuring Tools using MongoDB, enhancing user interaction and functionality, while reducing manual deployment efforts by 15 hours per week.
- Automated data visualization processes with Dash Plotly, streamlining reporting workflows for project teams and increasing reporting efficiency by 30%.
- Implemented JSON file correction automation, reducing manual processing by 30% and significantly improving data pipeline efficiency, contributing to faster project delivery.
- Performed ad-hoc data analysis and software engineering tasks on Microsoft Azure, utilizing SDKs and APIs to enhance data retrieval, improving task completion speed by 15%.
- Improved machine learning model accuracy by 10% through analysis of structured and unstructured data.

### Cinionic (A group of Barco Division)

Kortrijk, Belgium

#### Data Scientist

Feb 2023 – May 2023

- Analyzed sensor real-time data (360M obs.) to predict equipment failures in Barco Series 4 projectors, providing insights into operational efficiency.
- Developed and optimized a Gradient Boosting Model for failure prediction with a Precision of 0.80 and recall of 0.67, ensuring minimal false positives and improving maintenance planning efficiency.
- Collaborated with the team to present a cost-benefit analysis, demonstrating a potential 2% increase in operational uptime and a reduction in maintenance costs by identifying critical failure predictors.

### Flowserve India Controls Private Limited

Coimbatore, India

#### Applications Engineer

May 2018 – May 2022

- Built KPI dashboards using Tableau & forecast the project performance reducing the manual reporting by 4 hours weekly.
- Improved processes by reducing bottlenecks by 15% by creating automatic databases using Advanced Excel.

## SKILLS AND CERTIFICATIONS:

**Languages:** English (C1), French (A2), German (A2), Tamil (Native)

**Data Analysis & Visualization Tools:** Tableau, Power BI, Dash Plotly, MS-Excel, R Shiny, Streamlit, SQL, MS Azure, MongoDB, Git/Git Actions, dbt, LangChain

**Programming Languages:** Python (Pandas, NumPy, Matplotlib, Scikit-learn), R, SAS, PySpark

**Machine Learning Algorithms:** Clustering, Supervised / Unsupervised Learning, NLP, Deep Learning, Forecasting

**Certifications:** Tableau Desktop Specialist, PCEP – Certified Python Programmer, Google Data Analytics, Deep Learning Essentials by Blue Courses

## ACADEMIC PROJECT EXPERIENCE: [\[Refer Website for other projects\]](#)

### Data Scientist – [\[GitHub\]](#)

Lille, France

#### Personalized Ingredient Recommendation System for Recipe Optimization

Feb 2023 – April 2023

- Developed a recommender system for food.com to suggest ingredients based on user reviews and preferences.
- Pre-processed 165,000+ reviews, creating a unified list of ingredients, including healthier alternatives using NLP techniques like tokenization and lemmatization.
- Implemented a collaborative filtering model, achieving personalized ingredient recommendations with high coverage and diversity.
- Optimized system to recommend healthier ingredient substitutes, promoting better user choices based on nutritional data.

### Financial Analyst – [\[GitHub\]](#)

Lille, France

#### Yahoo Finance Stock Analysis Dashboard

Oct 2022 – Nov 2022

- Built a dashboard using Streamlit using scrapped data from Yahoo Finance to visualize stock performance, calculate simple moving averages, and perform technical analysis over adjustable time intervals.
- Conducted Monte Carlo simulations to predict stock price variations and evaluated Value at Risk (VaR) with 95% confidence, aiding in risk-return trade-off assessments.

## EDUCATION:

### IESEG School of Management | GPA: 3.84 / 4.00

Sep 2022 -May 2024

*Master of Science, Big Data Analytics for Business*

- Relevant Coursework – Statistics, SQL, Big Data Analytics, Predictive Modelling, Forecasting, Recommendation Systems, Deep Learning

#### Achievements:

- Served as Class Representative, managing academic schedules & communication for Big Data Analytics | Designed a Tableau dashboard for consumer credit monitoring, placing 10<sup>th</sup> out of 30 in the "IESEG Data Viz Challenge."

### PSG College of Technology | GPA: 8.5 / 10.00

June 2014 -May 2018

*Bachelor of Engineering, Mechanical Engineering* – Honored First Class for excellence