# Vaibhav Rana

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- Work Authorization: Eligible to work in Ireland under Work Visa conditions.

## ₽ PROFILE

Analytical and process-driven MSc Business Analytics candidate with a foundation in Electrical Engineering and proven ability to apply tools like Excel, Python, SQL, and Power BI to improve business operations. Experienced in data modeling, system optimization, and cross-functional project delivery. Strong interest in automation, digital transformation, and operational analytics. Certified in Advanced Excel, Tableau, and Machine Learning. Adept at translating technical insights into business value.

# **PROFESSIONAL EXPERIENCE**

Part-Time Barista

Costa Coffee

10/2024 - present Lucan, Ireland

04/2024 - 08/2024

- Delivered excellent customer service in a high-paced environment, improving daily transaction efficiency by 15%
- Communicated with diverse customer groups and resolved inquiries effectively, enhancing team performance
- Collaborated with team to implement a data-driven scheduling system to align staff shifts with peak hours

**Electrical Engineer** 

GAWAR Construction Ltd

Gurgaon, India • Designed and implemented low-voltage electrical systems, integrating IoT-based automation for operational efficiency and energy savings.

- Conducted root cause and failure mode analyses, reducing system downtime by 25% and enhancing reliability under field conditions.
- Used Python for simulation and modeling to inform preventive maintenance schedules and optimize component life cycles.
- Coordinated with cross-functional teams and vendors to upgrade infrastructure, ensuring 99.9% uptime during project transitions.

**School Administrator** 04/2016 - 04/2024 Shree Sai Public School Haryana, India

- Led operations for 50+ staff and 1,200 students; implemented data systems for performance tracking
- Automated infrastructure scheduling and resource allocation using Excel macros and logic functions
- Initiated control system installation projects, reducing utility waste by 20%
- Used Power BI to track key performance indicators and present findings to board stakeholders

# **CORE TECHNICAL & ANALYTICAL SKILLS**

### **Data Tools & Programming:**

Excel (Advanced), Python (pandas, NumPy, scikit-learn), SQL, Power BI, Tableau.

#### Automation & Scripting:

Python scripting, Predictive Modeling, Data Cleaning, Report Automation.

### Machine Learning & Analytics:

Regression, Classification, Clustering, Time Series Forecasting, Anomaly Detection.

#### **System Design & Engineering:**

PLC Programming, Electrical Systems Design, IoT Integration, Digital Twin Simulation.

### **Business & Process Optimization:**

Data Reconciliation, Performance Dashboards, KPI Analysis, Operational Efficiency.

## Data Visualization & Business Intelligence:

Designed interactive dashboards using Tableau (automotive analytics project); built decision-support tools with Power BI; visual storytelling using KPIs and trend analysis.

# **CERTIFICATIONS**

- Machine Learning with Python (Honors) – IBM
- Advanced Data Visualization with Tableau – IBM
- Excel Specialization Macquarie University
- Foundations: Data, Data, Everywhere – Google

## **EDUCATION**

### **MSc in Business Analytics**

Maynooth University

09/2024 – present Maynooth, Ireland

Relevant Modules: Data Warehousing (82%), Strategic Management (75%), Business Process Optimization (78%)

## Bachelor of Technology in Electrical and Electronics Engineering

07/2011 - 05/2015

MIT Manipal

Final Year Project: Simulation of Electrical Systems for Operational Optimization

# PROJECTS

### Predictive Analysis of Falcon 9 Launch Success

04/2024 - 07/2024

- Built **logistic regression models** for predicting outcomes using Python and historical data
- Demonstrated skills in **data integrity verification**, model optimization, and presenting actionable insights for critical business decisions.

#### Digital Twin Simulation for Electrical Systems

08/2024 - 09/2024

- Developed a **simulation model** to mirror real-time processes for predictive analysis.
- Improved system reliability by 15%, showcasing analytical and technical problem-solving skills.

### Simulation of Electrical Systems for Operational Optimization

08/2024 - 08/2024

- Developed a predictive model to simulate real-time **electrical load balancing**, improving reliability by 15%.
- Integrated automation solutions to streamline data collection and enhance decision-making processes.

# of interests

**Technology Enthusiast** — Passionate about building and optimizing PC hardware, exploring the latest advancements in gaming and technology for personal enjoyment. | **Fitness and Sports** — Enjoy participating in team sports and regular gym sessions, valuing the mental and physical benefits of staying active. | **Creative Problem-Solving** — Love tinkering with technology and finding innovative solutions to everyday challenges, blending curiosity with practical skills.

# **≈** REFERENCES

**Dr Edward O'Connor**, HRM Lecturer, Maynooth University Edward.OConnor@mu.ie