Vaibhavnath JHA

Operations Research Analyst, M.Sc.

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Braunschweig, Germany Indian Citizen | German Resident

Operations Research professional with background in Mathematical Optimization and Business Analytics. Specializing in Supply Chain Management with sound technical skills to effectively solve and visualize strategic, tactical and operational problems.

Professional Experience

Present – April 2022 | **Operations Research Analyst, GAMS Software GmbH, Frechen, Germany**

- Part of the ProvideQ project which combines Mathematical Optimization and Quantum Computing
- Part of the development team, responsible for implementing and maintaining new features for the software product

GAMS | Python | Optimization | Quantum Computing

March 2022 – September 2021 | **Python Developer | Part-time, AMS BIOTECHNOLOGY LTD., Oxford, England**

- Developing and Maintaining organization's ERP software
- Ad-hoc python programming tasks
- Extract, Transform, Load data into organization's database

Odoo ERP | Python | MS-Excel | MySQL | Power BI

Education

April 2022 – October 2019 | **M.Sc. Operations Research & Business Analytics | Faculty of Economics & Management, Otto-von-Guericke Universität, Magdeburg, Germany**

- GPA : 1.8 ECTS
- Thesis : Human Choice Behavior in Car Driving
- Admission in Dean's Merit List

Supply Chain Management | Machine Learning | Predictive Analytics | Computational Transportation | AI-Based Decision Support | Discrete Choice Models

Skills

Database Management Systems	MySQL, PostgreSQL
Data Visualization Tools	Power BI, Tableau
Development Tools	Visual Studio Code, Sublime, Git, Postman
ERP Software	Odoo 14
Mathematical Modelling	GAMS, GAMSPy
Office Suites	Microsoft Word, MS-PowerPoint, MS-Excel
Operating Systems	Windows 7/10, Windows Server, Linux Ubuntu, Linux PopOs
Programming Languages	Python, RStudio, JavaScript
Web Development	Django, Ajax, HTML5

Research & Projects

March 2022 **Master Thesis : Human Choice Behavior in Car Driving**

- Primary Objective : Estimate adequate behavioral choice models in order to understand the decision-making process while driving a car
- Secondary Objective : Scrap the web for in-drive choice date
- Several **Multinomial Logit** models, based on the utility maximization theory, were estimated using the Apollo package for **R** to capture the underlying choice behavior

March 2021 **Lot sizing for injection moulding machines at BMW Group**

- Primary Objective : Minimization of set up and inventory costs
- Secondary Objective : Creating a cost-effective schedule
- A **Mixed integer mathematical model** was researched and later Tabu Search heuristic was used in order to optimize the associated costs.
- The mathematical model and Tabu Search heuristic were developed on **Python**, using its linear programming library, **PuLP**

May 2019 **Employee Satisfaction**

- Primary Objective : To determine level of satisfaction of employees in a consultancy with the use of a well-researched **Questionnaire** and later using **Exploratory Factor Analysis**.
- Secondary Objective :
  1. To know employee's opinion about work place, pay and benefits
  2. Study and analyses the various factors affecting the job satisfaction level
- Tools like **R, SPSS and MS-Excel** were used to recommend ways to retain employees of the firm and better the attrition rate

Present **Python Playground**

- Maintaining a web-page to host self-crafted projects like **Time Series Forecasting, Capacitated Lot Sizing, K-means Clustering**.