

# Vaibhavnath JHA

## Operations Research Analyst, M.Sc.

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📍 Braunschweig, Germany **i** 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

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|------------------------------|---|
| Present<br>April 2022        | <b>Operations Research Analyst, GAMS SOFTWARE GMBH, Frechen, Germany</b> <ul style="list-style-type: none"><li>&gt; Part of the ProvideQ project which combines Mathematical Optimization and Quantum Computing</li><li>&gt; Part of the development team, responsible for implementing and maintaining new features for the software product</li></ul> <div>GAMS Python Optimization Quantum Computing</div> |
| March 2022<br>September 2021 | <b>Python Developer   Part-time, AMS BIOTECHNOLOGY LTD., Oxford, England</b> <ul style="list-style-type: none"><li>&gt; Developing and Maintaining organization's ERP software</li><li>&gt; Ad-hoc python programming tasks</li><li>&gt; Extract, Transform, Load data into organization's database</li></ul> <div>Odoo ERP Python MS-Excel MySQL Power BI</div>  |

## EDUCATION

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|--------------|--|
| April 2022   | <b>M.Sc. Operations Research &amp; Business Analytics   Faculty of Economics &amp; Management, OTTO-VON-GUERICKE UNIVERSITÄT, Magdeburg, Germany</b>   |
| October 2019 | <ul style="list-style-type: none"><li>&gt; GPA : 1.8 ECTS</li><li>&gt; Thesis : Human Choice Behavior in Car Driving</li><li>&gt; Admission in Dean's Merit List</li></ul> <div>Supply Chain Management Machine Learning Predictive Analytics Computational Transportation</div> <div>AI-Based Decision Support Discrete Choice Models</div> |

## 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

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- 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 data
  - 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**.