#### Joelle Sara Habib

With a Mathematical background – Specializing in Operations Research, Statistics, Mathematical Modeling, & Numerical Computation - and skills in Coding & Technical Writing, I approach the whole world around me through analytical lenses, and I am passionate about leveraging this mindset & techniques to tackle practical challenges and strive for Data Driven Optimized Solutions.

With 3+ years in the ICT & Supply Chain Sector, I have experience translating Business Objectives, Constraints & Requirement into their Mathematical Formulation; with Problem & Data Analysis; Algorithm Development, Implementation & Testing, and effectively presenting the derived insights.

# Work Experience

December 2021-Present

Contact information

Delft

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#### **Technical Skills**

- Advanced Programming in C,
   Python [Pyomo, Numpy, Pandas],
   R [Queueing, ROI, lpSolve]
  - **AMPL, Gurobi, CPLEX, CUDA**Good Matlab, Javascript, C#, Java
- Expert Excel user [+VBA & Solver]
- Extensive knowledge **SQL**, RDBMS
- 3+ years SAP & Power BI experience
- Familiar with GitHub, QGIS, MPI,
   Jupyter, Primavera, Tableau

- ◆ **Supply Chain Planner** for *Habonim Industrial Valves*
- o **Production Planning Optimization** [MILPs + Heuristic approaches] & development of corresponding Production & Inventory strategies.
- o Definition & Periodical Review of Optimal Safety Stock Items & Levels
- o Analysis of Historical Data & Trends
- Demand Forecasting
- o Monitoring of current stock levels & incoming deliveries
- o Job Scheduling of Working Orders & shipments to customers

July-November 2021

- ◆ Analytics Specialist for the European Procurement Team at Colgate Palmolive Company
  - Design & Implementation of Optimization Models for Raw Materials Purchase Split among Suppliers & Resources' Allocation among Plants
  - o Creation of integrated ERP-Excel/Google Sheets **Automation & Simulation Tools**, Reporting Templates, & Power BI Dashboards

June-October 2019

- ◆ Consultant at ICT Consulting for OpenFiber
- Geospatial Analysis & Visualization of current & simulated scenarios for Optimal FTTH network placement [Graph Algorithms + Heuristics]
- o Reports & Presentations tailored to different stakeholders

**Internships** 

December 2020-June 2021

- **♦ Business Intelligence Consultant** for *Deloitte Italy*
- o Customized SAP Solutions in ADT
- O Setup & Maintenance of KPI Monitoring Dashboards

April-October 2018

- ◆ **Solution Architect** at *Fujitsu Technology Solutions*
- o Tenders Feasibility & Competitors Analysis
- o Solution Design [including Tools & Subcontractors Selection]
- o Technical & Economical Proposal Drafting

Case Study- Optimal Personnel Dimension & Scheduling of a 24/7 Help Desk subject to Service Level Agreements & Contract Regulations [MILP+MIQP], Optimal Location & Distribution of On-Site-Support Personnel between sites, Cost & Competitors Considerations to maximize winning chances

## Languages

- Native Italian speaker
- Fluent English (C2)
- Fluent Hebrew (C1)
- Good Spanish (B2)
- Basic Dutch

### Qualifications

- **Registered Journalist** since 2018
- **AIRO Member** (Italian Association of Operations Research)
- 2080/2400 in the SATs

### Education

October 2020- March 2024

◆ MS Computational Science - Mathematical Models & Numerical Simulations, Roma Tre University

Relevant Courses – Numerical Analysis, Parallel Programming, Advanced Statistics, Probabilistic Method & Randomized Algorithms

Projects – Analysis & Predictions on MLB Playoffs 2022 using Regression, Moving Averages, & Monte Carlo Simulations

- Multi GPU Collision Search using Distinguished Points

October 2019- September 2020 *Put on hold during the pandemic* 

◆ MS Operation Research & Optimization, Technion- Israel Institute of Technology

Relevant Courses – *Nonlinear Optimization*, *Stochastic Processes*, *Game Theory*, *Optimization of Services* 

Projects – Performance Analysis of Specialized Routing in Multi Class Queueing Networks with Balking to Improve Customer Satisfaction

October 2015- October 2018
Graduated with 105/110

◆ BA Computer Engineering - Automation & Project Management, Roma Tre University

Relevant Courses – Linear Programming [+CPLEX], Integer Linear Programming, Optimization Algorithms on Graphs, Queueing Theory

Thesis – Fujitsu Tenders' Management & Solution Design: the LIspa case

High school

SY 2013/14, Matriculation exam Graduated with 84/100

♦ Mosenson Academy, Hod Hasharon, Israel

SY 2014/15

◆ Maimonides School. Brookline, **Boston**, US

### **Collaborations**

September 2015- February 2019

◆ Journalist for *Shalom*-monthly publication

June 2016- September 2018

Tour Guide for *Jewish Museum of Rome* 

September 2015- June 2019

◆ Hebrew Teacher for children for *Chabad Lubavitch*