Pham Minh Duc

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Profile

I'm currently researching the design of technologies and algorithms that address supply chain challenges in developing and emerging markets, especially informal markets, by combining methods from large-scale fieldwork, optimization, computer science, econometrics & data analytics, and action research in particular in the scenario of Industry 4.0.

Areas of Expertise

Combinatorial Optimization - Stochastic Optimization - Machine Learning - Data Analytics & Modelling - Supply Chain Analytics - Network design & routing - Production Planning & Scheduling - Operation Excellence - Lean & 6 Sigma

Education

Master in Data Science and Business Informatics *University of Pisa (Italy)*   *09/2023 - Present*
Relevant Courses: Optimization for Data Science, Model Driven Decisions Making
Double Degree MSc in Production Engineering and Management *University of Trieste (Italy)* *09/2019 - 03/2022*
Relevant Courses: Operation Management, Data Analytics
Double Degree MSc in Production Engineering and Management *TH-OWL (Germany)*   *09/2020 - 02/2021*
Activities: Erasmus Plus Exchange Program
Bachelor in Industrial Management *HCMC University of Technology and Education (Vietnam)*   *09/2014 - 09/2018*

Professional Experience

Business Analyst, *(Weave Services Limited)*   **Hongkong (remote)** *06/2022 - 8/2023*

- Developed strong analytical capabilities to support business and operational applications, including descriptive analytics, predictive analytics.

- Redefined the performance measurements for root cause analysis and built data analytics capability to support multi-perspective reporting and intelligent demand planning.

- Developed S&OP product packages, including sales materials and demo product. Led the deployment of demand planning and capacity planning within the product.

- Designed and built the algorithm to optimize required capacity, production shift and operator productivity in capacity planning project.

- Developed Business Intelligence product packages. Developed dashboards to track the performance and perform business/ data analysis tasks for Clients.

- Reviewed clients' businesses in the supply chain field, enhancing current factory diagnostic and operation excellence.

Production Data Analyst, *(Spartronics Vietnam)*   **Binhduong, Vietnam** *02/2021 - 05/2022*

- Collected, processed, analyzed the data to get insights and support top leaders making decisions, problem solving and improvements.

- Designed and built the SMT changeover process for two high-volume PCBA products, reduced setup time by 50% and increased OEE to 82%.

- Built and deployed 20 standardized SOPs and best-practice frameworks with defined KPIs/PPIs to drive process consistency and ensure output quality across operations.

- Developed a project that increased the First Pass Yield of Box Build products (21 SKUs) on the Tele-radio line to 98.89%, increased 4.09 sigma level, saved $35k in 2022 for the company.

Production Engineer, *(Coherent Corp.)*   **Binhduong, Vietnam** *12/2017 - 09/2019*

- Monitored, analyzed daily data regarding to business goals and took corrective/preventive actions to get them back on track.

- Made weekly/daily production schedules (200 SKUs) based on master production plans with the right time, quantity, conditions.

- Failure analysis by applying lean tools (5 whys, 5W1H, 5M1E, FMEA), mathematics techniques (6 Sigma, Reliability analysis, Pareto/SPC analysis, Cpk/Ppk, DOE) to define corrective/preventive actions regarding to quality excursions.

- Developed a productivity improvement process for a Core-Bedding product (single SKU), reducing average labor time from 0.38 to 0.23 hours per unit and saving $9,229.29 for the company.

Teaching Assistant, *(HCMUTE)*   **Hochiminh City , Vietnam** *09/2016 - 12/2016*
- Studied and solved exercises in Optimization Module, with topics as: Mathematical Programming, Constrained Optimization, Simplex Algorithm, Unconstrained (Linear) Optimization, Decision Analysis.

Online Courses & Certifications

- Certified in Planning and Inventory Management (CPIM) (Sep. 2023) - APCIS

- Specialization Certificate Six Sigma Green Belt (Jan. 2023) - The University System of Georgia, Coursera

- Specialization Certificate of Analytics for Decision Makings (Jan. 2022) - University of Minnesota, Coursera

- Specialization Certificate Supply Chain Management (Nov. 2020) - Rutgers Business School, Coursera

- Specialization Certificate Project Management Principles and Practices (Oct. 2020) - University of California, Irvine

Skills

Programming:	Python, AMPL
Databases:	SQL, SSIS, MDX
Statistics:	R, Microsoft Excel, Minitab
Optimization:	CPLEX, Gurobi, HIGHS
Data Visualization:	Microsoft Power BI
Others:	LaTeX

Languages

- **Vietnamese** [Native]
- **English** [Advanced]

Honors & Awards

- Intel Product Vietnam Scholarship (2017)
- AmCham Vietnam Scholarship (2017)

References

- **Associate Professor. Elio Padoano**
  University of Trieste
  Email: padoano@units.it

- **Hoang Quoc Huy**
  (Ex.) Senior Manager at Weave Services Limited
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