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

Data Analytics & Modelling - Machine Learning - Operation Research - Supply Chain Analytics - Supply Network
Production Planning & Scheduling - Operation Management - Lean & 6 Sigma - Model Driven Decisions Making Support

Education

MSc of Data Science and Business Informatics *University of Pisa (Italy)*   *09/2023 - 12/2025*
Relevant Courses: Optimization for Data Science, Model Driven Decisions Making
Double Degree MSc of Production Engineering and Management *University of Trieste (Italy)*   *09/2019 - 03/2022*
Relevant Courses: Operation Management, Data Analytics
Double Degree MSc of 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*

Scientific Research

Master Final Thesis in Production Engineering and Management, University of Trieste (Italy)
Thesis title: "Analysis and improvement of a production process through Lean - Six Sigma: a case-study at Spartronics Vietnam," under the supervision of Professor Elio Padoano, University of Trieste.

Scientific Research at Faculty of Economics, HCMC University of Technology and Education (Vietnam)
Title: "Develop the business model for second-hand books and equipment for students at HCMC University of Technology and Education (HCMUTE)", under the supervision of MBA Phan Thi Thanh Hien, lecturer of HCMUTE.

Bachelor Final Thesis in Industrial Management, HCMC University of Technology and Education (Vietnam).
Thesis title: "Apply DMAIC to reduce labor time for a Core-Bedding product at II-VI Vietnam Co., Ltd," under the supervision of MSc. Bui Thu Anh, lecturer of HCMUTE.

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 data systems to capture performance data for new products, developed dashboards to track the performance and perform business/ data analysis tasks when issues arise.
- Designed and built the SMT changeover process for two high-volume PCBA products, reduced setup time by 50% and increased OEE to 82%.
- 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, C, AMPL
- **Databases:** SQL, SSIS, Mdx
- **Statistics:** R, Minitab, SPSS
- **Optimization:** CPLEX, Gurobi, HIGHS
- **Data Visualization:** Microsoft Power BI, Microsoft Excel
- **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
  Email: huy.hoang.ds21@gmail.com