

MOHAMMAD AMMAR

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VISA: CANADA (Open Work Permit / Jun 2027); UNITED STATES (B1/B2 Visa / Mar 2034) | OPEN TO RELOCATE

SUMMARY

Industrial Engineer with 3+ years of experience in process optimization, continuous improvement, and data-driven operations. Skilled in Lean Manufacturing, Six Sigma, time-motion studies, and value stream mapping. Proficient in Python, SQL, Minitab, AutoCAD, Power BI, and Excel for analytics and SPC. Adept at capacity planning, production control, and root cause analysis to drive cost reduction and efficiency in manufacturing and service systems.

EDUCATION

Concordia University, Montreal — Master of Engineering, Industrial Engineering **GPA: 3.4**
Relevant Coursework: Operations Research, Production Planning, Facility Layout & Design, Supply Chain Management, Quality Control, Simulation Modeling

Jamia Millia Islamia, New Delhi — Bachelor of Technology, Mechanical Engineering **GPA: 9.2**
Relevant Coursework: Manufacturing Processes, Industrial Automation, Time & Motion Study, Ergonomics, Materials Engineering

WORK EXPERIENCE

Invisible Technologies

Operations Consultant | Oct 2024 – Present | Canada

- Built **Power BI dashboards** for real-time **operations tracking**, reducing reporting turnaround by 11%.
- Applied Lean and **Six Sigma** principles to streamline **AI workflows**, cutting error rates and **improving OEE**.
- Automated data processes using **Python** and **SQL**, eliminating 17% manual effort and enhancing **system reliability**.

FedEx Canada

Operations Associate | (Part-Time) | Jun 2023 – Dec 2024 | Canada

- Conducted **time and motion studies** to optimize **dock operations**, increasing trailer handling rate from ~70 to ~80 per hour.
- Coordinated **MRO inventory and procurement**, improving spare part availability and **reducing unplanned downtime**.
- Delivered **safety and compliance** training to 15+ staff, aligning with **OSHA** and **EHS standards** & reducing onboarding time by 7%.

AmiColo (Startup)

Business Strategy Analyst | Jul 2023 – Sept 2024 | Canada

- **Co-founded** a roommate-matching platform that attracted **30K+ organic visits** in its first month.
- Applied **K-means clustering** to improve profile matching, boosting user engagement by **15%**.
- **Secured \$60K** in seed funding through **investor pitch** highlighting **market and pricing strategy**.

Innovation Center – Concordia University

Technical Project Coordinator | *AcademAI - (Project-Based Contract)* | Sept 2023 – Jan 2024 | Montreal, QC

- **Developed** AI-powered academic tools using **Python** and **OpenAI APIs** to improve student engagement.
- Applied Agile and **value stream mapping** to optimize project workflows, supporting **continuous improvement** in digital education systems.
- **Nominated** among **Canada's Top 40 AI Products** (2023–24); pitched to **Desjardins** for **\$50K** in funding.

Innovation Center – Concordia University

Technical Project Coordinator | *FoodX - (Project-Based Contract)* | Sept 2022 – Jan 2023 | Montreal, QC

- Built a **web-based logistics** platform with Power BI dashboards, **reducing food waste by 13%** through optimized redistribution workflows.
- Conducted **root cause analysis** and implemented **process improvements** aligned with Lean and **Just-in-Time principles** in urban supply chains.
- **Secured \$14K** in pilot funding; project recognized by the **Quebec Innovation Council**.

Sygnius Infotech Ventures

Business Systems Analyst | Jun 2020 – Nov 2022 |

- Conducted AS-IS/TO-BE **process mapping** and **workflow redesigns**, leading to a 9% gain in **team productivity**.
- Automated MRO reporting using **SQL** and **Excel macros**, reducing reconciliation time by 11% and minimizing manual errors.
- Supported **ERP system** enhancements and implemented **standard operating procedures** to align with quality assurance metrics.

CERTIFICATIONS AND KEY SKILLS

Certifications in Progress:

Lean Six Sigma Green Belt | Power BI Certified | CBAP | Professional Scrum Master | OSHA Compliance

Project & Operations Management:

Agile • Scrum • Project Management • Kanban • Just-in-Time (JIT) • Manufacturing Resource Planning (MRP II) • PLM Systems

Core Industrial Engineering:

Industrial Engineering • Manufacturing Engineering • Work Measurement • Facility Layout Planning • Production Scheduling • Capacity Planning • Inventory Management • SOP Development • MRO Optimization • OEE Improvement

Process Improvement & Quality:

Lean Manufacturing • Six Sigma • Kaizen • 5S • Continuous Improvement • Root Cause Analysis (RCA) • Value Stream Mapping • FMEA • TPM • TQM • Statistical Process Control (SPC)

Tools & Analytics:

SQL • Python • Excel (Advanced, with Macros) • Power BI • Tableau • Minitab • Looker Studio • AutoCAD • SolidWorks • ERP Systems (SAP/Oracle) • Microsoft Project

Compliance & Standards:

ISO 9001 • ISO 14001 • EHS Compliance • OSHA Safety Standards • Quality Assurance

PUBLICATIONS

1. Improving Material Quality Management & Manufacturing Organization Systems Through Industry 4.0 Technologies

Materials Today: Proceedings (Elsevier), Vol. 45, 2021 | DOI: [10.1016/j.matpr.2021.01.585](https://doi.org/10.1016/j.matpr.2021.01.585)

Explored the role of **Industry 4.0** in reducing **material wastage**, enhancing **predictive maintenance**, and improving **inventory control** in manufacturing systems.

2. Implementing Industry 4.0 Technologies in Self-Healing Materials and Digitally Managing the Quality of Manufacturing

Materials Today: Proceedings (Elsevier), Vol. 52, 2022 | DOI: [10.1016/j.matpr.2021.09.248](https://doi.org/10.1016/j.matpr.2021.09.248)

Presented **digital quality management** techniques such as **IIoT**, **SPC**, and **Big Data Analytics** to automate defect detection and enhance process transparency.

3. Significant Applications of Smart Materials and Internet of Things (IoT) in the Automotive Industry

Materials Today: Proceedings (Elsevier), Vol. 68, 2022 | DOI: [10.1016/j.matpr.2022.07.180](https://doi.org/10.1016/j.matpr.2022.07.180)

Analyzed **IoT-enabled systems** and **smart materials** in automotive operations, covering **ADAS**, **V2X connectivity**, and predictive diagnostics for **IE applications**.

4. Improving the Performance of Supply Chain Through Industry 4.0 Technologies

Springer Nature, Advancements in Materials, Vol. II, 2021 | DOI: [10.1007/978-981-16-5371-1_67](https://doi.org/10.1007/978-981-16-5371-1_67)

Studied smart supply chains using forecasting, vendor selection, and real-time logistics optimization frameworks based on Industry 4.0 systems.

PROJECTS

1. Simulation & Optimization – Decontamination Center

Link - www.mohdammar.com/projects

Simulated **hospital decontamination workflows** using discrete event simulation (DES) in **Rockwell Arena** to compare **AGV vs manual operations**. Optimized throughput and resource allocation for **healthcare process improvement**.

2. Enhancing Sample-to-Order Conversion at Champo Carpets

Link - www.mohdammar.com/projects

Analyzed **ERP sales** data using **Python** and **Looker Studio** to improve **quote-to-order rates**. Applied predictive models to recommend **inventory adjustments**, increasing **conversion rates** and profitability.

3. Inventory Intelligence for Cost Efficiency

Link - www.mohdammar.com/projects

Developed **PowerBI dashboards** to analyze **SKU-level inventory**. Identified **aging stock**, optimized **reorder strategies**, and enabled \$3.4M capital release via **lean inventory planning**.

4. Go-Kart Design – INDKC Season 4

Link - www.mohdammar.com/projects

Led design of a **125cc go-kart** using **AutoCAD** and **SolidWorks**. Optimized component efficiency, reduced material costs, and enhanced performance, resulting in a **winning business strategy** presentation.

5. Smart Building Proposal – Schneider Electric Challenge

Link - www.mohdammar.com/projects

Developed an **IoT-based smart building proposal** to optimize **energy efficiency**. Integrated **automation systems**, **smart grids**, and **sustainability practices** to reduce operational costs and **improve building management**.

ACHIEVEMENTS

- **McKinsey** Forward Program 2025 | **Google** Cloud Data Engineering Cohort 1 2025
- Named among **Canada's Top 40 AI Talents** by NEXT AI and **HEC Montreal** in 2023.
- Led AmiColo to win **Best Capstone Project 2024**; invited to **Concordia University's** funding round.
- Awarded **CA\$3,500** for developing an AI product with measurable social impact.
- Recognized for excellence at **FedEx**; awarded **CA\$5,000** for outstanding performance in work and academics.
- Published four research papers with over **350+ citations** in **international journals**