



Omar Ali Iqbal Davila

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Mechanical Engineering graduate from Tecnológico de Monterrey with experience in sourcing, supplier qualification, SAP demand analysis, and manufacturing focused engineering projects. At Baker Hughes, supported sourcing decisions for machined, forged, and cast oil & gas components while analyzing 1,500+ parts across USD \$14M+ in monthly spend. Hands-on experience in CNC manufacturing, ANSYS Fluent CFD, SolidWorks structural analysis, and Excel/VBA process automation. English C1 with international academic experience at SKKU in Seoul.

EDUCATION

Tecnológico de Monterrey | B.S. Mechanical Engineering | June 2026 — GPA 91/100

Coursework: Machine Design, Manufacturing, Thermodynamics, Fluid Mechanics, Finite Element Analysis, Engineering Materials.

Sungkyunkwan University (SKKU) | Academic Exchange | Sep. – Dec. 2025 — Seoul, South Korea · GPA 96/100

Selected coursework: Data Analysis, International Trade, Applied Engineering Materials.

EXPERIENCE

Baker Hughes | *Mexico Sourcing Specialist Intern* | Aug. 2024 – Sep. 2025 · Monterrey, NL

- Produced 250+ SAP and Excel reports analyzing 1,500+ parts across four sourcing areas supporting USD \$14M+ in monthly spend, surfacing demand, savings, and supply-risk priorities.
- Supported a USD \$5M+ annual savings target by benchmarking supplier pricing against prior-year, regional/global, and in-house baselines; flagged cost increases and sourcing risks to guide negotiations and cost-reduction actions.
- Cleared a USD \$2M+ multi-year payment backlog for a critical single-source supplier, strengthening supply continuity and supplier relations.

Contaré | *Business Operations & Automation Intern* | Jan. 2026 – Present

- Reduced biweekly payroll processing for 500+ employees from approximately 15 hours to 2 hours by automating consolidation, calculations, validations, and reporting with Excel VBA and Power Query; reduced staffing needs from four people to one.
- Manage operational and fiscal workflows for four clients, building standardized automations and identifying data or process errors across expense capture, purchases, invoice validation, and payroll controls.

Layne de México | *Welder & Diesel Mechanic Intern* | May 2023 – Aug. 2023 | Hermosillo, Sonora, Mexico

- Supported field maintenance and fabrication for trucks, diesel engines, heavy equipment, and drilling equipment through preventive maintenance, hydraulic and electrical support, SMAW/FCAW welding, plasma cutting, and oxy-fuel cutting.

PROJECTS

ADS | *In-House CNC Lathe Design and Build* | Mechanical Design Project 2026

- Led electrical and motion control integration for a 14 person team that designed and built an in-house CNC lathe for ball joint production, configuring Mach3, spindle transmission, stepper motors, drives, safety controls, and grounding.
- Delivered a low vibration lathe producing parts from 0.75-inch stock in approximately 3 minutes, meeting 0.1–0.5 mm tolerances; supported a MXN \$35K build versus a comparable new machine costing more than MXN \$1M.

Daikin | *Heat Exchanger Airflow Optimization* | CFD Simulation 2025

- Modeled and simulated six tube-angle configurations in ANSYS Fluent using SST k- ω , mesh generation, boundary-condition setup, and streamline analysis; identified the best airflow configuration with improved penetration, distribution, and lower recirculation versus the highest-turbulence case, and presented recommendations to Daikin engineers.

Daimler Truck | *Paint Booth Gate* | Structural Redesign 2024

- Contributed to four design iterations of an A36 steel immersion gate redesign using SolidWorks Simulation and hand calculations, evaluating loads, Von Mises stress, deflection, welds, fasteners, and stress concentrations to achieve a factor of safety of 3 and a manufacturable design with improved load distribution.

TECHNICAL SKILLS

Engineering & manufacturing: SolidWorks, ANSYS Fluent (CFD), Fusion 360, Mach3, MATLAB, GD&T, engineering drawings, tolerance analysis, machining processes, CNC fundamentals, PFMEA, 8D/Ishikawa, vernier caliper, micrometer, height gauge, surface-roughness inspection reports.

Supply Chain & Quality: SAP, demand analysis, purchase orders, material master data, supplier evaluation, RFQ management, sourcing savings tracking, inventory analysis, KPI reporting.

Data & Automation: Excel, VBA, Power Query, Power BI, Python, SQL, APIs, pandas, data visualization, automation, CSV/Excel workflows, JavaScript

CERTIFICATIONS & PROFESSIONAL TRAINING

- QDA X — QDA Solutions GmbH | DataMetrics — Datamyte 2026
- EnglishScore C1 Advanced — British Council 2026
- Data Science Math Skills — Duke University 2025

ADDITIONAL

Honors: Bronze Medalist, Sonora State Chemistry Olympiad (2020); Physics Olympiad participant (2021).

Volunteer: Built a TECHO housing unit in a two day team project (2025); weekly volunteer, SPPG Community Garden (2024).