

KEVIN RAAD

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PROFILE

Industrial engineer (B.Eng., Concordia) who takes operations problems from definition to deployed software. On contract with Keurig Dr Pepper's Montreal coffee plant, where seven projects now run production planning, scheduling, reporting and quality analysis for four departments, with a combined projected saving of roughly \$4.9M a year. Builds the model and ships the system: operations research in Python, delivery on the Microsoft Power Platform. Trilingual, with earlier industrial experience in the energy sector in Italy and the UAE.

EDUCATION

B.Eng. Industrial Engineering (ECAB-Accredited) | Concordia University, Montreal, Canada 2021/09 – 2026/05

Baccalaureate in General Sciences (French) | College Notre Dame de Jamhour, Lebanon 2021/06

PROFESSIONAL EXPERIENCE

CI Strategy Engineer (Contract) | Keurig Dr Pepper, Montreal, QC, Canada 2026/05 – Present

- Delivered a relief-staffing optimisation model projected to save roughly \$2.9M a year, a newsvendor formulation solved on historical shift data and validated against an independent system of record. Approved and named the highest-value project of the Q3 productivity summit.
- Designed a deterministic scheduling engine worth roughly \$1M a year in recovered production time, solving a parallel-machine problem with deadlines, machine eligibility and sequence-dependent setup. Certified against a combinatorial lower bound, which it reaches exactly.
- Built a quality non-conformity analysis that ranks defect types by confirmed loss and exposes the false-alarm rate, worth roughly \$500K a year, and a breakdown management workflow worth roughly \$500K a year that retires the plant radio fleet and makes response time measurable.
- Automated four processes previously run on spreadsheets, whiteboards and verbal handover, including three reports assembled by hand every shift, delivering Power Platform applications and Python services writing to SQL Server.
- Worked directly with planning, maintenance, production, quality and floor supervision to define requirements, validate models on real operating data and run acceptance testing with end users.
- Established the verification practice behind the work: algorithms checked against brute force, decisions stress-tested by resampling, and models reconciled against independent systems of record.

Capstone Project: Predictive OEE & Grind Scheduling | Concordia × Keurig Dr Pepper 2025/09 – 2026/04

- Built a forecasting model that runs nine methods in competition and picks the winner per production line by out-of-sample rolling validation, with prediction intervals from Monte Carlo simulation.
- Developed a just-in-time scheduling tool that consumes the forecast through a single-quantity interface, and presented the findings to plant stakeholders and academic supervisors.
- Deployed both in Power BI with an operator-facing dashboard, validated them against a discrete-event simulation of current and future state, and audited the written report against the deployed code.

Teaching Assistant – Manufacturing Engineering | Concordia University, Montreal, QC, Canada 2025/05 – 2026/04

- Supported students in CNC programming, machining, sheet metal work and welding; graded process sheets, drawings and inspection reports against manufacturing standards.

Internship – Project & Operations Engineering | Ansaldo Energia S.p.A. Genoa, Italy 2024/07 – 2024/08

- Followed the full product lifecycle for industrial gas turbines, shadowing a senior project manager through a C-Inspection of a GT36 turbine and building project coordination and structured technical reporting skills.

Internship – Operations & Data Analysis | Ansaldo Energia S.p.A. Abu Dhabi Branch, UAE 2023/05 – 2023/08

- Ran client-facing operational analysis and reporting for turbine blade repair operations, and took part in the 2023 World Utilities Congress. Delivered in English and Arabic.

SKILLS

- **Technical:** Python (pandas, NumPy, PuLP, OR-Tools), SQL, VBA, C++, Power Apps, Power Automate, Power BI, SharePoint, Office Scripts, SAP, AutoCAD, SolidWorks, Arena, MS Office.
- **Methods:** Stochastic optimisation, scheduling theory, constraint programming, forecasting and model selection, Monte Carlo and discrete-event simulation, bootstrap resampling, ETL pipelines, Lean manufacturing, SPC.
- **Languages:** English (fluent), French (fluent), Arabic (fluent).

EXTRACURRICULAR

- Lebanese Red Cross Volunteer (2018–2019) | 7× National Track & Field Champion, represented Lebanon at the U-19 West Asian Championship (2019) | Lebanese National Basketball Champions, Jamhour Club (2018–2019).