Kemal Baran Dursun

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EDUCATION

McGill University Montreal, QC
Bachelor of Arts in Computer Science & Economics *December 2026*

- **Relevant Coursework:** Econometrics, Probability, Computation, Data Structures, Economic Statistics, Financial Instruments and Institutions

PROFESSIONAL EXPERIENCE

Duronm Textile Company Izmir, Turkey
Invoicing and Collections Position Internship *June 2023 – August 2023*

- Analyzed 200+ accounts receivable transactions to identify payment trends, delays, and cash-flow risk exposure.
- Built weekly Excel reports tracking overdue balances, collection performance, and working capital indicators for management review.
- Supported reconciliation of invoicing and payment records, improving data accuracy and reporting reliability.
- Flagged high-risk accounts and payment anomalies for follow-up, supporting improved collection prioritization.

Advanced Information Modeling Inc St. Petersburg, Florida (Remote)
Summer IT Intern *June 2024 – August 2024*

- Supported internal IT operations by monitoring system availability, performance logs, and basic operational metrics to help ensure stable day-to-day technology services.
- Analyzed internal workflows and documented recurring technical issues and process inefficiencies, contributing to recommendations for process and system improvements.
- Assisted with technology-enabled process improvements by updating internal documentation, tracking system changes, and supporting standard operating procedures.

PROJECTS

Quantitative Portfolio Optimization & Risk Engine
Python, Pandas, Matplotlib, NumPy

- Built a stochastic portfolio optimization engine using Modern Portfolio Theory to identify the Maximum Sharpe (Tangency) Portfolio through 10,000+ Monte Carlo simulations.
- Implemented multivariate return simulation using Cholesky decomposition with covariance matrix regularization to ensure numerical stability and robust portfolio weights.
- Designed a risk analytics module computing Parametric VaR and Expected Shortfall (95% & 99%) to quantify tail risk beyond standard volatility metrics.

AI-Powered Financial Risk & Anomaly Detector
Python, SQL, PostgreSQL, LLMs

- Designed an automated Accounts Payable monitoring system to detect duplicate invoices, vendor price creeping, and unauthorized scope changes, targeting a reduction of 1-3% in A/P revenue leakage.
- Engineered a robust SQL data pipeline to ingest and normalize raw accounting data, establishing 90-day rolling statistical baselines for vendor payment frequencies and pricing variances.
- Integrated LLM-based logic to perform automated audits on invoice line-item descriptions, instantly flagging potential compliance breaches and financial anomalies for management review.

ADDITIONAL INFORMATION

Certifications: CFA Level 1 Candidate, FMVA – Financial Modeling & Valuation Analyst
Languages: English (Native), Turkish (Native), French (Intermediate)
Skills: Microsoft Office Suite, Python, Excel, SQL, Statistical Analysis, Risk metrics (VaR, stress testing concepts), Quantitative Modelling, Data Analysis, Power BI
Activities: McGill Consulting Association, Economics Student Association