

Summary

I've collaborated with leading consultancies & global corporations for 15+ years, in roles such as BI Team Lead, Data & Analytics Architect, Data Analyst, and Data Engineer. I've been providing value by developing automated reports with advanced analytics, building the relevant data infrastructure, and enabling the use of data models & AI tools for self-service analysis. I collaborate with stakeholders to build solutions that drive impactful decisions, and use proven SDLC frameworks to ensure quality throughout the delivery process.

Core competencies

Analytics Strategy	Data & AI Enablement	Self-service BI Enablement	Enterprise BI Reporting	Data Warehousing
Dimensional Modelling	Data Quality Management	Mentoring & Coaching	Agile Team Management	Requirements Analysis
Power BI & DAX	ETL: ADF & SSIS	PySpark & SparkSQL	MS Fabric & Databricks	SQL Server (T-SQL)

Career History

Data & Analytics Contractor & Freelancer • 11/2022 – ...

Works with companies on a consulting or long-term contractual basis.

- Helps a global industrial tools company power an AI-driven app to support sales teams, by designing the data architecture, developing data assets, and implementing quality controls on Microsoft Fabric.
- Helped a Fortune Global 500 pharma build a Power BI control tower for their global supply chain, to monitor OTIF & 3PL performance & investigate root causes.
- Led a team of 5 to build a Medallion architecture in MS Fabric for a Fortune Europe 500 energy company, and to migrate Databricks, Synapse & Power BI assets, working with Finartix and a Big4 consulting firm.
- Led a team of 2 to evolve a set of Power BI reports for a Fortune Europe 500 FMCG company, involving customer care management.
- Led a team of 3 to help one of the 25 biggest companies in Greece monitor DLP operations through BI reports, a SQL based data mart, and data pipelines hosted on Azure.
- Helped an ATHEX listed company manage their sales, production & inventories, by creating automatic reports & translytical flows on Power BI & Aimplan.
- Led a team of 3 to develop 10 Power BI reports, and the relevant data mart & ETL pipelines, to help a leading Greek bank manage their loan approval processes, working with Finartix and a Big4.
- Assisted a Dubai based shipping company to migrate a set of Power BI reports to servers in UAE, enabling company clients to monitor shipments, orders, costs, and ESG metrics.
- Developed a Generative AI Proof of Concept, to enhance collaboration & demonstrate productivity enhancements for a Health & Safety consultancy.

Senior Data Engineer, Office Line • 02/2022 – 10/2022

Developed Power BI reports and Azure Synapse Analytics pipelines. Helped clients in the financial services, education & shipping industries. Continues supporting the company as a freelancer.

Senior DWH Developer, Code.hub • 01/2021 – 01/2022

Built the Data Warehouse of a financial services client, together with internal and consulting teams. Provided training to clients on SSIS & SSRS.

Business Intelligence Manager, PeopleCert • 06/2015 – 12/2020

Led a team of 5 to build the company's Enterprise Data Warehouse, to enable self service analytics on SSAS, increasing analysts' productivity 10x, and to create 300+ Power BI, SSRS & Python analytical deliverables.

Senior Advisor, Financial Services Advisory, EY (Ernst & Young) • 01/2011 – 06/2015

Participated in advisory projects for leading UK & Greek banks. Developed data marts & BPM workflows, created automated reports, and performed advanced analytics for credit & operational risk management.

Research Executive, Analytics Centre of Excellence, Circana (ex. IRI) • 06/2010 – 12/2010

Contributed to the development of marketing mix modelling capabilities used for estimating the impact of pricing, campaigns, promotions, seasonality, and the macroeconomic environment.

Marie Curie Fellow, Department of Statistics, University "La Sapienza" • 06/2007 – 05/2010

Published research on Time Series & Game Theory using evolutionary AI optimization algorithms.

Selected Projects

Data Products for an AI-powered application, Swiss industrial tools company¹

Designed the data & analytics architecture in Microsoft Fabric and helped in the development of the relevant data products to recommend actions for the global sales teams to be able to pursue business opportunities.

- Designed and implemented a scalable data architecture aligned with data federation principles, while meeting non-functional requirements related to data quality, security, governance & confidentiality.
- Developed data pipelines & PySpark notebooks transforming Salesforce, SAP & mobile app data, including customer meetings, opportunities, app telemetry & recommendation adoption tracking.
- Established & developed quality controls, including unit tests and automated deliverable validation checks.
- Developed data quality controls & data cleansing automations to ensure source data accuracy & validity.
- Consulted with the team on leading practices about analytical data modelling, data quality management, platform performance monitoring, and data preparation for AI-powered self-service analytics tools.

Data Lakehouse & BI reports, Fortune Europe 500 energy provider (with a Big 4 consultancy)

Implemented analytical assets that helped one of the biggest 500 companies in Europe monitor the financial and operational performance of their e-mobility assets, as well as manage risks in the energy market.

- Led the migration of the e-mobility analytical assets to Microsoft Fabric, designing the underlying Medallion Architecture, and guiding the team on developing the necessary capabilities.
 - *Designed the Bronze & Silver Lakehouses, and the Gold Data Warehousing Layer, and provided source-destination mapping documents to establish a controlled data distillation process as per the relevant Microsoft guidelines.*
 - *Guided the team to migrate the underlying Databricks notebooks, expanding them to record SCD Type 2 historic information within Delta Tables in the Silver Layer, and to develop SQL scripts, stored procedures, and data pipelines to populate the entire Dimensional Data Warehouse in the Gold Layer (including SCD Type 6 dimension tables).*
 - *Created a relevant Semantic model and all the necessary DAX measures, so that the specified Power BI reports can be developed, and the business analysts in the organization are empowered to perform their own analyses.*
 - *Also guided the team to migrate the necessary ADF pipelines to Fabric to read API's and store JSON output into the Bronze Layer, to transform the Silver pipelines to handle output into Delta Tables, and to create novel Gold Layer pipelines.*
 - *Worked with business stakeholders to establish a process for managing data quality, and guided the team on developing the automatic controls & monitoring reports functionality, and to migrate them into the relevant Fabric notebooks & pipelines.*
- Designed & developed Databricks PySpark notebooks to transform source data into Parquet & Delta tables.
 - *Wrote Python code to transform JSON input to Parquet files, and cleanse data as per business requirements.*
 - *Calculated e-chargers availability from status logs, through PySpark Dataframes (also leveraging window functions)².*
 - *Created incremental loading capabilities, leveraging Delta Tables, minimizing risks & ensuring modular data processing.*
 - *Created T-SQL stored procedures to calculate charging sessions duration, allocating them to appropriate hour intervals.*
 - *Created unit tests and provided guidance on best practices regarding integration testing and CI/CD pipelines.*
- Designed & developed Power BI reports to help monitor utilization, availability, and revenue of e-vehicle charging stations, and to provide insights on their comparative evolution across markets, coordinating with stakeholders to elicit requirements and ensure alignment with GDPR & corporate policies.
 - *Designed Star schemas with multiple tables per dimension (used for comparing metrics through TREATAS).*
 - *Created calculation groups & field parameters, to present visuals with alternating measures (including custom formats).*
 - *Implemented drill-through and bookmark features using buttons to enhance the customer experience.*
 - *Established Role Based Security, created Power BI Apps & implemented DAX for time-based intelligence.*
 - *Developed Power BI Paginated reports for users to easily download data from the model for ad-hoc analysis.*

Power BI analysis & modelling, Fortune Global 500 Pharmaceutical

Helped monitor the timeliness and completeness of product deliveries at a global scale, by developing a Supply Chain Control Tower in Power BI, together with the Customer Care Analytics Team.

- Contributed to the design of a balanced scorecard in Power BI, with KPI customization features, to provide insight on various aspects of the global supply chain, including OTIF, Sustainability, S&OE, and Logistics.
- Developed an OTIF dashboard, providing visibility on targets & KPI evolution, Loss Tree & key drivers contribution to global and local OTIF, as well as the factors that have the most impact on total loss.
- Contributed to the development of a Power BI reporting pack to monitor key metrics related to 3PL partners performance, including the timeliness of shipping & delivery, inventory accuracy, shipment & receiving accuracy, and root cause analysis, across all key 3PL/4PL's in the global supply chain.
- Also led the refactoring of Power BI and Snowflake models to address challenges posed by increased data volume, resulting in a 2.25x improvement in performance and a 2.15x reduction in capacity costs.
 - *Redesigned the models using dimensional modeling principles (around 80% of the new features were actually implemented).*
 - *Refactored DAX measures and removed unnecessary relationships, ensuring reports' accuracy and increased performance.*
 - *Introduced Surrogate Keys in both the Snowflake & Power BI models, and created specs for the relevant implementations.*

- Used Tabular Editor to manage the Power BI data model (e.g. for removing MDX compatibility & saving >35% on storage).
- Validated BI model & newly refactored measures, and measured performance gains, using DAX Studio & Fabric monitoring.

Power BI reports, Supply Chain, global Greek manufacturer (with an IT company)

Implemented a set of Power BI reports to help the client monitor their global sales, shipments & production, and manage their safety stock levels, leveraging SAP BW & Proteus WMS data and incorporating translytical flows through Aimplan, for the users to provide input and create custom scenarios for market demand.

- Designed a robust dimensional data model to support scalable, high-performance analytics tailored to supply chain and inventory planning use cases.
- Created reporting tables and interactive Power BI visuals to provide historic insights & future trends on sales, production, and inventory KPIs.
- Integrated Aimplan visuals within the reports, enabling user input through Power BI tables and custom extensions, which fed directly into safety stock and reorder point calculations.

Power BI reports, Supply Chain, global provider of Marine Services (with an IT company)

Designed and developed 5 Power BI reports with advanced UI features and row-level security to provide information on shipments, costs, and ESG metrics, and helped deploy them to Power BI Embedded. The reports empowered the client to proactively manage their customers' supply chain, enabling strategic adjustments that enhance efficiency & sustainability, and provide cost savings.

- Designed UX enabling different views, by switching all visuals within the same report page, with the click of a button.
- Aligned branding with organizational color patterns to ensure a consistent and professional appearance of all 5 reports.
- Created a dimensional model to consolidate all reports within a coherent view, incl. calculated tables & calculated columns.
- Configured Role Based Security by creating roles in Power BI model/service, so each user can review their own information.
- Transformed input Excel data through Power Query, using M & visual steps to shape the results into the target dimensional model.

Business Intelligence & Big Data Manager, PeopleCert

Led a team of 5 to build the company's EDW (Enterprise Data Warehouse) & analytical deliverables to empower data driven decisions and increase analysts' productivity 10x through self service analytics, while also providing guidance on data management best practices to business stakeholders.

- Designed the EDW using the Kimball framework and Azure IaaS/PaaS infrastructure.
 - Dimensional Data Store (DDS) with SCD Type 1,2,6 Conformed Dimensions, and Transactional & Periodic Snapshot Facts.
 - Master Data Hub, to enable the consolidation & curation of master data coming from ERP, CRM, systems built in-house, etc.
 - SQL Server on Azure VM's (IaaS), Azure Analysis Services (PaaS) for self-service BI, Power BI & SSRS for enterprise BI.
- Increased reporting analysts' productivity 10-fold through a holistic BI model for self-service analytics.
 - Holistic SSAS BI model, on top of the DDS with various pre-calculated measures (aggregations, time intelligence, balances, etc.).
 - Various teams could create reports in Power BI & Excel, combining data across enterprise processes and systems.
 - Also managed partitions, on premises data gateway configuration and user role assignment on the BI model (incl. dynamic RLS).
- Established agile principles (Kanban, SCRUM), and Azure DevOps (Git) based control & deployment.
- Coached team members on BI development & trained data stewards on managing (master) data quality.
- Developed SSIS/T-SQL ETL's, ADF ELT's, and SSAS/Power BI semantic models & DAX formulas.
 - Data Flows for loading dimensions using Merge Join, Union All, SCD wizard, SQL Merge, on-error event handlers, etc.
 - Data Flows for loading facts using conditional flows & splits, lookups, file system tasks, CDC, timestamps & hashes, etc.
 - Data Flows for loading Master Data Hub, leveraging the SSIS Master Data Services tasks & T-SQL stored procedures.

In addition, we delivered over 300 Power BI reports and Python analytical deliverables to:

- Support strategic decisions through value stream monitoring & process mining.
 - Used custom visuals to detect the % of test takers who also took other exams, as well as the mean time elapsed between those.
 - Used AI & statistical methods (in IPython notebooks) to segment & profile customers, and evaluate promotional activities.
 - Developed (together with the team & an external consultant) a holistic Power BI pack based on a System Dynamics approach.
- Inform business stakeholders through tactical sales reports across regions & product lines.
- Provide automatic P&L, budget monitoring and other financial reporting capability.
 - Mapped transactions to G/L Accounts & Transaction Groups, developing complex ETL logic, as per the provided business rules.
 - Wrote DAX to aggregate P&L credits/debits, and similarly for accounts with balances retained through year's end.
 - Developed a parametrized, 'pixel-perfect' SSRS pack for the accounting team to generate P&L and Balance Sheets automatically.
- Promote quality of customer service & online proctoring through KPI's & six sigma metrics.
 - Elicited requirements and guided the team to develop standard visuals & KPI's: customer waiting time, % calls lost, NPS, etc.
 - Developed a Power BI PoC with RAG KPI's / statistical calculations to display sigma levels, and Python-based visuals for SPC.
- Monitor procurement & examinations processes through tactical & operational BI.

Power BI reports & Data Mart, loan operations, leading Greek Bank (with a Big 4 consultancy)

Developed a Power BI reporting pack and a SQL Server data mart, to provide insights into the number of

loans transitioning through various process states, their detailed status and their evolution through time, helping the bank streamline its loan approval processes.

- Collaborated with client stakeholders to elicit requirements and design suitable T-SQL transformations.
 - Developed SQL scripts to assign loan cases statuses, through window functions & UNBOUNDED PRECEDING.
 - Developed SQL scripts to determine case statuses combining attributes from several tables, using complex CASE WHEN logic.
 - Developed SQL scripts to determine status of external cases, consolidating data (JOINS, UNIONS, CTE's, etc.).
- Designed a UI that provides ease of use and allow the selection of various timeline perspectives.
 - Implemented changing stacked bar visuals displaying yearly, monthly,..., up to date details per case type, through bookmarks.
 - Enabled % change monitoring of various measures, selected within the same visuals, through field parameters.
 - Provided drill through functionality, for the users to be able to compare custom date intervals seamlessly.
- Developed most of the ETL & reporting assets & guided colleagues, optimizing delivery timelines.
 - Designed all necessary SSIS packages to load dimensions & facts, and developed SSIS tasks & T-SQL code (e.g MERGE).
 - Designed & developed effective indexing strategies that (given direct query mode) led to report filters refreshes within 2-3 sec.
 - Implemented DAX to calculate % changes (with e.g. YTD, DATEADD), as well as complex logic to 'skip' dates with no data.

Data Warehouse Development, Greek Financial Service (with an IT company)

Built the Enterprise Data Warehouse of the company, together with internal and consulting teams.

- Developed most ETLs populating the staging area from source systems, using SSIS & T-SQL.
- Demonstrated best practices for designing dimensional data marts and Power BI models.
- Provided coaching to colleagues & training to external stakeholders on SSIS, SSRS & Power BI.

Selected Education & Certifications

- Ph.D. Computational Game Theory, Technical University of Crete
- M.Sc. Operational Research, Technical University of Crete
- B.Sc. Economics, University of Crete
- Data Mining & Applications Graduate Certificate, Stanford University
- Microsoft Certified: Fabric Analytics Engineer Associate
- Microsoft Certified: Azure AI Engineer Associate
- Microsoft Certified: Power BI Analyst Associate
- Microsoft Certified: Azure Data Scientist Associate
- Microsoft Applied Skills: Implement a Data Warehouse in Microsoft Fabric
- Microsoft Applied Skills: Implement a Lakehouse in Microsoft Fabric

Selected Publications & Tutorials

- Automatic translation, sentiment analysis & word cloud tutorial in Azure Synapse, AI services & Power BI
- Tutorial on how to ingest data into a Fabric Lakehouse and visualize them with Python notebooks
- Create Slowly Changing Dimensions in Databricks Delta Lake
- Covert status logs to availability per day in Spark/Databricks
- Outliers detection in multivariate time series using genetic algorithms
- Time-varying multi-regime models fitting by genetic algorithms
- Coevolutionary genetic algorithms for establishing Nash equilibrium in symmetric Cournot games

Selected Testimonials

- **Ioannis F, Group ICT Director, global Greek manufacturer:** "We had the privilege to co-operate with Matt, an excellent professional with an out of the box thinking & always willing to assist. I do recommend Matt, regardless of the project complexity."

- **Javier F, Global Supply Chain Analytics Manager, Fortune Global 500 pharmaceutical:** "Matt handled complex data requirements and delivered Power BI solutions that met our technical specifications. He proved to be a reliable developer who can tackle sophisticated reporting tasks."

- **Angelos P, Head of e-Mobility Products & Services, Fortune Europe 500 energy provider:** "His in-depth knowledge of BI tools and professionalism are standing out and helped deliver 1st class Power BI reports. What I really enjoy about Matt is his ability to connect with people, he is a true professional and team player."

- **Charis T, Manager SE Europe, global shipping group:** "Working with Matt has enabled us to convert raw data into KPIs & market trends, with a profound impact on our business. His support helped us aim on higher efficiency, sustainability & cost savings."

- **Ria B, Project Manager / Information Analyst, leading Greek bank:** "I have worked with Matt in a BI project for a Greek bank. The quality of the result, timely response and excellent cooperation, make Matt a leader in his field and an impeccable professional."

¹ Client names have been omitted. Several clients have given me permission to share more details, to be discussed if needed.

² The links on this document do not lead to the assets created during project work, apparently, but to relevant content I've created.