

# Francesca Monte

Marketing Data Analyst · Analytics Engineering · Digital Strategy

Open to relocation: Amsterdam / Dublin

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## PROFILE

*I've always needed to know the reason behind the result. Not just what worked — why it worked, and what would happen if you changed one variable. That instinct pushed me from content strategy into data analytics: I couldn't accept making decisions I couldn't verify. Now I build the analysis that answers the questions most people don't think to ask.*

## SELECTED PROJECTS

### **SENTRY.mark — Automated Anomaly Detection & Alerting System** · [BigQuery](#) · [Python](#) · [Power BI](#) · [Slack](#) · [GitHub Actions](#)

May 2025

*End-to-end pipeline detecting statistically significant deviations in GA4 marketing data with real-time alerts and a budget kill-switch.*

- Queries GA4 data from BigQuery; detects deviations via rolling Z-Score baselines (7-day window,  $\alpha=0.05$ , threshold  $Z>1.96$ )
- Three-tier architecture: Detection → Classification → Activation; severity bands MEDIUM / HIGH / CRITICAL with business impact mapping per anomaly type
- Kill-Switch simulator triggers Slack alerts and budget suspension recommendations only when anomaly type and  $Z\geq 3.0$  are simultaneously met — prevents false positives
- Validated via chaos engineering: 5 synthetic anomalies injected into real GA4 data — all 5 detected correctly
- Executive Power BI dashboard with Command Center + Deep Dive views; pipeline automated via GitHub Actions

**Stack:** [Python](#) · [Pandas](#) · [SciPy](#) · [BigQuery](#) · [SQL](#) · [Power BI](#) · [Slack Webhooks](#) · [GitHub Actions](#)

### **Causal Impact of Ad Exposure on Conversion Rate** · [Causal Inference](#) · [Python](#) · [Statistical Analysis](#)

Mar 2025

*Measuring the true incremental lift of advertising using Inverse Probability Weighting (IPW) — separating ad effectiveness from user selection bias.*

- Identified and corrected selection bias: users shown ads were systematically younger, more active, and more mobile — making naive conversion comparisons invalid
- Estimated propensity scores via Logistic Regression; applied IPW weights to create statistically balanced exposed vs. control groups
- Validated covariate balance using Standardised Mean Differences (Love Plot): all SMDs below 0.1 threshold after weighting
- Result: raw lift 6.05% vs. true causal lift 5.17% — 0.89pp overestimation bias attributable to user characteristics, not ad effectiveness

**Stack:** [Python](#) · [Pandas](#) · [Scikit-learn](#) · [NumPy](#) · [Matplotlib](#) · [Seaborn](#)

### **Amsterdam Airbnb Market Analysis — ETL Pipeline & Dashboard** · [Python](#) · [BigQuery](#) · [Power BI](#) · [Data Engineering](#)

May 2025

*End-to-end data pipeline: raw CSV ingestion → Python cleaning → BigQuery cloud storage → multi-page Power BI dashboard. Dataset: ~10K listings, 3.8M calendar rows, 500K reviews.*

- Built full ETL pipeline from Inside Airbnb raw data: cleaning and transformation in Python, cloud load into BigQuery (3 relational tables), Power BI data model with relationships
- Key finding: Centrum-Oost leads revenue potential (~€60K/listing/year); Bijlmer-Oost shows highest occupancy driven by supply constraint, not demand excess
- Price-quality analysis: above €500/night, price does not correlate with review scores — Amsterdam premium listings sell on location, not experience

**Stack:** [Python](#) · [Pandas](#) · [Google BigQuery](#) · [Power BI](#) · [DAX](#)

**Additional project — E-commerce Profitability Attribution (SQL · BigQuery):** identified hero product categories at 62% gross margin via 3-table JOIN analysis; HVC segmentation for Lookalike Audiences. Full portfolio → [francescaetnom.com](https://francescaetnom.com)

## EXPERIENCE

### Freelance Marketing & Analytics Consultant — Independent

Jan 2026 – Present

- Meta ad campaign audit, performance analysis and budget strategy for an emerging restaurant in a competitive urban market
- Website performance review and SEO recommendations based on traffic and behavioural data
- Projects SENTRY.mark and Causal Inference on Ad Spend originated directly from this consulting work

### Data Quality & AI Content Evaluator — RWS · Remote, project-based · (concurrent) Sep 2025 – Jan 2026

- Evaluated AI model outputs for Meta and Google ad systems against GDPR and data classification standards
- Search quality evaluation: assessed SERP relevance against user intent using strict platform guidelines

### Content Strategist & Media Manager — Polymed Surgery S.r.l · Naples Feb 2025 – Nov 2025

- Grew Instagram following from ~60K to ~70K (+15%) in 9 months through data-informed editorial planning
- Managed and analysed Meta ad campaigns: reach, follower growth, and active client acquisition
- Full ownership of content strategy, editorial calendar, and paid campaign execution

### Marketing & Communications Intern — Asco Pompe S.r.l · Milan

Oct 2024 – Jan 2025

- Brand strategy project spanning multiple subsidiaries under a single corporate umbrella
- Stakeholder management across CEOs of different business units to build a unified brand identity
- Competitive landscape analysis and brand positioning across the industrial sector

### Marketing & Social Media Intern — Royal Group S.r.l · Naples

Jan 2023 – Jan 2024

- Supported digital campaign execution and monitored performance metrics across paid and organic channels

## TECHNICAL SKILLS

### Analytics & Data

BigQuery	SQL (CTEs, JOINS)	Python (Pandas, SciPy)	Power BI (DAX)
GA4	Looker Studio (now Data Studio)	Scikit-learn	Star Schema

### Methods

Statistical Analysis	Causal Inference (IPW)	Anomaly Detection	ETL Pipeline Design
Experiment Analysis	KPI Reporting	A/B Testing	Data Cleaning

### Marketing & Automation

Meta Ads	Campaign Analysis	SEO	GTM
GitHub Actions	Slack API	n8n	Agentic AI Workflows

**Compliance** GDPR · Data Classification

## EDUCATION

**Master's — Strategic & Professional Communication** · University of Pisa

Dec 2024

**Bachelor's — Languages & Cultures (Europe & Americas)** · UniOr

Oct 2023

**Digital Marketing & Agentic AI Master** · Start2Impact University

Expected Aug 2026

## CERTIFICATIONS

Google Data Analytics Professional Certificate · Google / Coursera

Feb 2026

Google Analytics Certification · Google

Jan 2026

Microsoft PL-300 — Power BI Data Analyst Associate · Microsoft

May 2026

## LANGUAGES

Italian (Native) · English (C2) · French (B2) · Portuguese (B2) · Dutch (A1 — actively learning)