

# THOMAS PELLET

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## PROFESSIONAL EXPERIENCE

**Cubist Systematic Strategies** – New York, NY 2025 – Present

*Data Engineer*

- Architected the **Cubist Factor Engine** (0→1), a firm-wide data platform enabling self-serve factor analytics. Built end-to-end with dynamic **Airflow** scheduling, **SQL** data models with **Alembic** versioning, contribution management, multiple backtesting backends, REST API, and custom HTML dashboards serving 1,000+ factors.
- Developing **NLP**-powered data products leveraging Entity Recognition and Sentiment Scoring to enrich alternative data signals, partnering with PMs to translate business requirements into production-ready pipelines.
- Established data quality standards for 12+ datasets through automated schema validation, statistical QC, and real-time anomaly detection (**SQL/DuckDB**), ensuring reliable signal delivery for trading decisions.
- Serve as primary data partner for portfolio managers and engineering, influencing vendor roadmap for key Bloomberg API integrations and data architecture decisions across the firm.

**Bloomberg L.P.** – New York, NY 2023 – 2025

*Data Scientist, Data Technologies Engineering Group*

- Led data quality initiative (0→1) for **\$50M product launch**, partnering with Product and Engineering stakeholders to define metrics, implement ML-based error detection, and establish data integrity SLAs that directly enabled launch decision.
- Built distributed backtesting infrastructure (**Argo/Kubernetes/GraphQL**) validating billions of financial records, creating canonical datasets serving 20+ products across multiple business lines.
- Designed ETL pipelines and interactive visualizations (**Plotly, Altair/Vega-Lite**) for Human-In-The-Loop QC, enabling self-serve data access and **reducing sampling generation time by 99%**.
- Championed data-driven transformation across two engineering teams through executive reporting, influencing roadmap prioritization for schema, observability, and ML infrastructure.
- Supervised 3 data analysts, establishing best practices for reproducibility, experimentation tracking, environment management, and testing.

**Northwestern University** – Evanston, IL 2019 – 2023

*Computational Economics Researcher*

- Trained and evaluated ML models on HPC clusters using **Dask** and **SLURM**, achieving significant financial prediction accuracy gains and resulting in an academic publication.
- Published research on macroeconomic impact of supply chain disruptions using graph theory in the **Journal of Monetary Economics**.
- Built micro-simulation agent-based model of the US economy to analyze impact of demand forecasting accuracy on inflation dynamics.

**Peterson Institute for International Economics** – Washington, DC 2017 – 2018

*Research Analyst for Pr. Olivier Blanchard*

- Developed reinforcement learning model for optimal portfolio allocation, core result for the **2019 AEA Presidential Address**.
- Collaborated with Federal Reserve economists to publish research on tax policy and equity markets using prediction markets.
- Analyzed the **Tax Cuts and Jobs Act**, publishing journal article, policy brief, and blog post reaching thousands of readers.

**Rothschild Asset Management** – Paris, France 2016

*Global Financial Market Analyst*

- Designed debt sustainability dashboards using **Bloomberg/Eikon APIs**, reducing reporting time by 80% and enabling self-serve analytics for portfolio managers.

## EDUCATION

**Northwestern University**  
Ph.D. in Economics, 2019–2023

**HEC Paris**  
Master in Management, 2015–2018

**Sorbonne University**  
B.Sc. Mathematics, 2012–2015

## TECHNICAL SKILLS

<b>Languages</b>	Python, SQL, R
<b>Data Platform</b>	Airflow, Spark, DuckDB, MS SQL Server, Alembic, Pydantic, GraphQL
<b>Infrastructure</b>	Argo, Kubernetes, Docker, S3, Redis, DataDog, Jenkins
<b>Testing</b>	pytest, tox, mypy, ruff
<b>Visualization</b>	Plotly, Altair/Vega-Lite, HTML/CSS/Jinja

Awards: Northwestern Ph.D. Scholarship • University of Chicago Exchange Scholarship