

# Laurent Callot

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## Summary

Applied science leader with experience building and scaling teams to develop AI-driven automation agents and tools. Led global teams of scientists and engineers delivering AI solutions for software development, cloud infrastructure, and enterprise automation. Skilled in the development of AI products, large-scale deployment, and bridging research with practical applications.

## Work Experience

### AWS AI

Seattle, USA - Berlin, Germany

PRINCIPAL APPLIED SCIENTIST AND SENIOR MANAGER

Mar. 2020 - current

- Agentic AI science head for Amazon Q, Kiro, and Amazon Software Builder Experience.
- Created and managed a team of 30+ scientists and engineers distributed on 4 continents.
- Key accomplishments:
  - 2025: Launched two frontier agents (AWS DevOps agent and Kiro Autonomous Agent) at re:Invent 2025 (link)
  - 2025: Release the SWE-Polybench coding benchmark (link).
  - 2024: Led the development of the Amazon Q Developer agent. Topped SWE-bench leaderboard 3 times (leaderboard link, blog 1, blog 2).
  - 2024: Developed AI agents to automate Java application migration at Amazon. Saved 4500 years of developer effort and \$260M/year. (link)
  - 2023: Built Amazon's internal deployment safety system, monitoring 3 million deployments monthly.
  - 2023: Developed the Sagemaker Foundation Model Hub, making 10+ FM models 1-click available with parameter-efficient fine-tuning.
  - 2021: Launched the Anomaly detection service Amazon Lookout for Metrics.

### Amazon - Intelligent Cloud Control

Berlin, Germany

SENIOR APPLIED SCIENTIST

Jan. 2019 - Feb. 2020

- Science lead for the organization in charge of the health of Amazon's retail website.
- Key accomplishments:
  - 2020: Developed a new alarming system for Amazon's key metric, the order rate, detecting rare ( $10^{-6}$ ) events with precision.
  - 2019: Developed a service resilience policy indicator and incentive scheme for all service owners at Amazon reviewed weekly at SVP-level.

### Amazon - Supply Chain Optimization Technology

Berlin, Germany

ECONOMIST

Jun. 2016 - Jan. 2019

- Key accomplishments:
  - 2018: Developed and deployed the first neural structural model for long-range forecasting.
  - 2017: Built uncertainty quantification on the legacy forecasting system for retail ordering.

### Danske Commodities

Aarhus, Denmark

CONSULTANT

2013 - 2014

- Built ML forecasting models and trading strategies for the Nordic electricity spot market.

### Free University Amsterdam

Amsterdam, the Netherlands

POSTDOCTORAL RESEARCHER - ECONOMETRICS AND MACHINE LEARNING FOR TIME-SERIES ANALYSIS.

2012 - 2015

- Research Fellow, the Tinbergen Institute. Junior Research Fellow, CREATES.

## Skills

|                   |   |
|-------------------|---|
| <b>Management</b> | 5+ years of management of over 30 scientists and engineers. Over 150 interviews and 30 hires. Underperformance management |
| <b>Research</b>   | 20+ publications on generative AI, deep-learning, time-series, causality, statistics, econometrics with >2k citations.    |
| <b>Patents</b>    | 4 patents granted, 12 filed with USPO.  |
| <b>Languages</b>  | English (fluent), French (fluent), Danish (proficient)  |

## Education

### Ph.D. in Econometrics

2007 - 2012

CREATES - AARHUS UNIVERSITY

Aarhus, Denmark

- Visiting Scholar, Princeton University 2011.
- Dissertation focused on Time-series modeling, high-dimensional statistics, Machine Learning, and applications in macroeconomics.

### B.Sc. in Mathematics and Computer Science

2007

PARIS SORBONNE UNIVERSITY - UNIVERSITÉ PIERRE ET MARIE CURIE

Paris, France

### B.Sc. in Economics

2007

PARIS NANTERRE UNIVERSITY

Paris, France