

Laurent Callot

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Summary

Applied AI leader building agentic systems and automation at global scale. Built and scaled multi-continent teams (30+), led productization of frontier AI agents for software development and operations, and delivered measurable business impact through deployment safety, migration automation, and benchmark leadership. Strong track record translating research into durable, high-adoption products.

Work Experience

AWS Agentic AI

PRINCIPAL APPLIED SCIENTIST AND SENIOR MANAGER

Seattle, USA

Mar. 2020 - current

- Science lead for agentic AI across Kiro, Amazon Q, AWS DevOps agent, and Amazon Software Builder Experience.
- Built and scaled a 40+ person, multi-continent org of scientists and engineers dedicated to agentic AI.
- Key accomplishments:
 - 2025: Launched two frontier agents (AWS DevOps agent and Kiro Autonomous Agent) at re:Invent 2025 ([link](#))
 - 2025: Released 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

Jun. 2016 - Jan. 2019

ECONOMIST

- 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

2012 - 2015

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

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

Skills

Management Led distributed orgs of 40+; 200+ interviews; hired and developed managers; accountable for multi-team delivery.

Research 20+ publications (NeurIPS, ICML, ICLR, AIStats) on AI, deep-learning, time-series, causality, statistics with >2k citations.

Patents 5 patents granted, 12 filed with USPTO.

Focus Areas Agentic AI, developer tools, cloud ops automation, benchmarking, reliability/safety.

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