Stefano Meschiari Ph. D.

stefano.meschiari@gmail.com Website LinkedIn GitHub

As a Data Science leader with more than 8 years' experience, I use data and algorithms to deliver solutions that are practical, durable, and trustworthy. I bring a scientific mindset, rigorous craft, and people-first attitude to every team I join. I thrive on cross-functional projects that require strong leadership across many teams and quarters.

AREAS OF EXPERTISE

- **Machine Learning** (supervised and unsupervised classification and regression; fraud detection; custom ML algorithms development; high-performance numerical algorithms; applied ML research in the security and fraud space)
- **Data and Software Engineering** (high-volume ETL and ML pipelines on AWS and Databricks; data products for BI/internal analysis; web-based applications and games; open-source development; Scala, Spark/SparkML, Python, Java, C, JavaScript, React)
- **Data Science and Analysis** (causal inference and A/B testing; dashboards, tooling, and reproducible reports for executive decision-making; Python, R, SQL, Streamlit, Shiny, Databricks)
- **Team Leadership** (mentoring junior teammates to senior positions; scoping complex timelines and deliverables, evaluating risk and impact, and acting as a data advocate across multiple teams; distilling complex concepts to stakeholders and users)

RECENT WORK EXPERIENCE

Stripe

Senior Data Scientist, Fraud (June 2022 - April 2024)

- *Protected our customers from unauthorized access to their merchant accounts.* I built ML models, rules, and processes that prevent access to unauthorized Stripe merchant accounts, with the goal to minimize the impact to our customers. Drafted multi-quarter roadmaps, reported on loss accounting against budget, and delivered status updates to risk leadership and our financial partners. **My work prevented more than $2M/yr in incremental losses**, not including customer pain and reputation costs avoided.
- *Guided our Risk Team through tradeoffs.* I designed A/B experiments, detailed analyses and simulations of financial losses/customer pain tradeoffs, and made recommendations on new operating points to hit our targets. I distilled these analyses into concrete options, incremental revenue projections, and dashboards for leadership and our partners. **The new operating points resulted in an estimated $3M/year in customer churn reduction.**
- *Remediated large-scale incidents.* As a part of incident response for many financial incidents, I worked with urgency to analyze new fraud patterns, stand up incident dashboards, build models to predict losses, find gaps in our existing systems, build new detection, and conducted post-mortems. I represented Stripe with financial partners such as Mastercard.
- *Built new customer-facing tooling.* I joined a team of Risk PMs, front-end, data engineers, and designers to deliver a significant new web dashboard feature (Merchant Risk View). I designed the data model and underlying queries, validated the semantics of the fraud metrics across customers, built and stood up a mock implementation feeding from real customer data, and paired with engineering to deliver the feature on a hard deadline dictated by Stripe's Session 2024 conference.

Duo Security and Cisco
Senior Data Scientist (Jul 2017-May 2019), Technical Lead (May 2019-Dec 2021)

- Led research, development, and engineering of the platform that powers Duo Trust Monitor (demo), Duo's threat detection solution and a headline feature for thousands of customers, in collaboration with Security, Product, and Design.
- Led the Data Science team through growth from 1 (myself) to 10 IC members, navigating substantial organizational change. Created reports, dashboards, and prototypes that guided technical and UX decisions. Delivered presentations, demos, and trainings internally (for engineering, sales, and VP-level executives) and externally. Submitted 2 patents to USPTO, including a first-inventor patent for our proprietary ML algorithm for threat detection.

Civitas Learning
Product Data Scientist (2016-2017)

- Created and improved on machine learning pipelines and tooling to model university student outcomes. Improved the custom modeling platform, reducing batch training and scoring running time and cloud costs by half.
- Developed applications that surfaced institution-level insights and visualizations, empowering Sales and executives with timely data-driven talking points and facilitating new partnerships and upsells.
- Worked with higher education institutions to rigorously evaluate efficacy of initiatives for student graduation rates.

University of Austin at Texas
W. J. McDonald Postdoctoral Fellow (2012-2016), SAVE/Point PI (2014-2016)

- As a postdoctoral researcher in astrophysics, I led the data analysis effort for the Lick-Carnegie science collaboration (~20 scientists across the United States). Analyzed high-value time series data captured with Keck, APF and Lick telescopes. Created an IDE and libraries for modeling this data, Systemic, which have been used to discover more than 40 new planetary systems by multiple teams.
- Wrote high-performance, highly parallelized code to simulate planetary formation on UT supercomputer clusters.
- Developed two educational web-based applications. *Super Planet Crash* was played more than 15 million times and covered by The Verge, IO9, Huffington Post, and others, and installed at the Seattle Museum of Flight. *Systemic Live* was used by Caltech, UF, UT, MIT, SJSU, Yale, Columbia, and Coursera to teach students about data analysis and modeling.

EDUCATION

Doctor of Philosophy (Astronomy & Astrophysics, 2012), University of California at Santa Cruz

8 first-author refereed publications on time series analysis, optimization, and physics simulations for exoplanet discovery (cited 437 times); a total of 17 refereed publications (cited 1,444 times). Whitford Prize for highest achievement in research and master's coursework.