Stefano Meschiari Ph. D.

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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; Spark/SparkML, H2O, Python, Java, Scala, 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 users from unauthorized access to their merchant accounts.* I built ML models, rules, and processes that protect Stripe users accounts, balances, and data. Drafted multi-quarter roadmaps, reported on losses against budget, and delivered status updates to leadership. **My work delivered more than $2M/yr in prevented losses and a 2x decrease in accounts flagged**.
- *Guided our Risk Team through tradeoffs.* I designed A/B experiments, analyses, and simulations on tradeoffs between financial losses and customer pain when altering our risk appetite. I provided recommendations for new operating points, financial 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 fraud incident response, I worked with urgency to analyze new fraud patterns, stand up incident dashboards, build models to predict terminal losses and plug detection gaps, and conduct post-mortems. I represented Stripe with partners such as Mastercard.
- *Built new customer-facing features.* I joined a team of Risk PMs, front-end, data engineers, and designers to deliver a significant new merchant feature (Merchant Risk View). I designed the data model and underlying queries, validated the semantics of the fraud metrics, built and stood up a mock implementation feeding from real customer data, and paired with engineering to successfully deliver the feature on a hard marketing deadline.

Duo Security and Cisco

Senior Data Scientist (Jul 2017-May 2019), Technical Lead (May 2019-Dec 2021)

- Led research, development, and engineering of the ML 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.
- Researched supervised and unsupervised algorithms tailored to the security domain, focusing on simplicity, explainability, and scalability.
- Led and mentored the Data Science team through growth from 1 (myself) to 10 IC members, while navigating substantial organizational change.Delivered presentations, demos, and trainings internally 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, recommendations, 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, I led data analysis and modeling for a collaboration spanning 20 astrophysicists. Analyzed high-value data captured with some of the world's largest telescopes to discover new exoplanets. Created an open-source analysis package which has been used to discover more than 40 new planetary systems by teams around the globe.
- Wrote high-performance, highly parallelized code to simulate planetary formation on UT supercomputer clusters.
- Developed two educational 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* is 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.