Ryan Muraglia

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SUMMARY

Data scientist with 6 years of experience and a proven track record of delivering business value with both classic data science and analytics, as well as with modern deep learning methods. Strong written and oral communicator excels in leadership roles, driving alignment across teams and job functions towards overarching strategic goals, but also flourishes in independent and collaborative technical roles requiring deep domain expertise to produce trustworthy insights and models. Passionate about establishing best practices and processes for rigorous and reproducible science, and maintainable and scalable systems.

WORK EXPERIENCE

Meta (formerly Facebook)   Ann Arbor, MI (remote)
Data Scientist, Senior Level   October 2021 - Present

· Established metrics and strategy for *Integrity Rule Engine* systems, responsible for processing **trillions of events per day** to detect violating content with **99.9+%** system reliability.
· Drove a major cross-functional and cross-team intiative to create foundational data infrastructure for **source of truth** metrics reporting and analysis across disparate integrity systems, enabling **unified, reproducible and robust insights**.
· Saved **$5M** in annual operating costs by improving **value attribution** methodology to surface underperforming detection rules, and collaborating with rule owners for remediation.
· Achieved a **45%** reduction in estimated time to readiness by developing a **prioritization framework** for rule engine migration to identify a core set of maximally shared dependencies.

Yahoo! (formerly Oath, Verizon Media)   Champaign, IL
Data Scientist II, Brand Data team lead   April 2019 - October 2021
Data Scientist I   January 2017 - March 2019

· Implemented a **deep learning model** and PySpark pipeline for automated retraining and deployment of a **named entity recognition** system, processing over **100M records/day**.
· Prototyped analyses leveraging *brand-identified data* for partner teams in sales and targeting, including customer segmentation and churn analysis (**clustering**), brand search topic association (**topic modeling**), and polarized content engagement (**sentiment analysis**)
· Demonstrated a leading and innovative spirit, with a **100% success rate** (3/3 years) in accepted submissions to Yahoo's annual internal technical conference

EDUCATION

Duke University, Durham, NC   August 2012 - August 2016
M.S., Computational Biology & Bioinformatics (CBB)

University of Michigan, Ann Arbor, MI   September 2007 - April 2011
B.S., Microbiology; Academic Minor, Physics

TECHNICAL SKILLS AND PROFICIENCIES

Primary Languages	Python, R, SQL (Hive, Presto), Shell (Bash)
Common Libraries	pandas, scikit-learn, PySpark, TensorFlow 2, PyTorch, tidyverse
Classic Data Science	Regression and Classification (Linear models, Tree models, Ensembles) Clustering (e.g. k-means), Anomaly Detection (esp. time series)
Deep Learning	Feedforward networks, Convolutional networks (CNN), Recurrent networks (LSTM), Attention networks (Transformers)
Dashboarding	Shiny, Flask, Looker
Additional Tools	Git, Hadoop, Make