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Jason Nichols

Skills:
- Leadership
- Strategy
- Agile/Scrum

Programming Languages:
- Python
- C++
- JavaScript

Machine Learning & Data Science Techniques
- Reinforcement Learning & Agent-based modeling
  - DeepQ
- Time series analysis
  - Fourier
  - ARIMA
- Computer Vision
  - BRISK/SIFT/SURF
  - SLAM
  - Haar Cascades
- Neural Networks
  - CNN
  - LSTM/GRU
  - Siamese Networks
  - 3D Conv (I3D/Eco)
  - BagNet

Technologies:
- TensorFlow
  - Serving
  - Graph Transform
  - TensorRT
- GCP
- AWS
- OpenCV

Summary:

A **senior AI/Data Science Executive with 20 years of experience** in roles of progressive responsibility and technical complexity.

Experience:

Chief Technology Officer — Centricity — 2019 – Current

- Joined a seed stage startup and built the company to a Series A
  - Valuation increased >10x in under 12 months (From Seed to A Round)
  - Onboarded first Fortune 500 clients
  - Built three offices during a pandemic (NYC; Dublin, IE; Lagos, NG)
- Drafted patent applications, wrote security policy, and presented to investors
- Designed and built entire POC with one other engineer
- Refined POC into Beta and ultimately deliverable product while building team
- Featured in Wall Street Journal, Bloomberg, Business Insider, etc.

Director of AI — Walmart — 2018 – 2019

- Designed & Developed AI Platform for training, inference, testing, and deployment. A fully scalable cloud-hybrid platform that:
  - Incorporates sensor streams into Inference Engines
  - Samples all inferences and maintains a desired class balance
  - Assigns samples to human and machine annotation agents
  - Normalizes and persists training data
  - Combines new data with internal or external models to via AutoML and ML Engine to train new versions of models
  - Tests those models in a custom CI/CD platform
  - Automatically propagates new models via Blue/Green deployment to TF Serving for A/B testing within Inference Engines
- Led development on object detectors, classifiers, regressors, and identifiers in the world's largest retail environment (under NDA on specifics)
- Managed 4 teams of 11 engineers & data scientists split between Hoboken & Dublin
- Evangelized AI within organization

Senior Director of Innovation — Time Inc — 2016 – 2018

- Responsible for successful delivery of $600MM in digital ad revenue across entire 90 brand portfolio, including Sports Illustrated, Time, Money, and Fortune
    - Maintained all shared ad resources, including serving, matching, fraud protection, data warehousing, and analytics
    - Developed new proprietary ad products for the company
    - Built algorithms to develop internal user profiles based on decisions made by external targeting vendors
- Increased ads/pageview by 30% while reducing outside technology expenses by $10MM+/yr
    - Project Blackjack - Designed and built custom WAF using Lambda@Edge, Go, and DynamoDB to combat Methbot ad fraud network
    - Project Seymour - Designed and built in-house ad refresh solution that cross-referenced a cached HA DFP table, user cookies, and in-house policies to maximize revenue
    - Project Emma – Used NLP to identify old articles in archive that could be targeted by new ad keywords
- Managed 3 teams, totaling 11 engineers, 2 project managers, and 13 QA (internal and external) split between NY and Bangalore
- Trained Product Owners & Scrum Master

Director of Platform Engineering — Miner Labs — 2015 – 2016

- Developed prototype visual search which allowed us to search for products with custom properties across over a dozen retailers inventories, and cross-reference with user preference so that when a customer searched for "little black dress", the most relevant ones showed up for her, despite the fact that those words never appeared in any of the products descriptions (roughly fashion MNIST + custom ontology and synonyms in ElasticSearch)
- Managed 13 engineers on four teams, including Front End, Backend, DevOps, and Data

Software Architect — NYSE — 2015

- Designed and implemented security and anomaly detection for Issuer Lifecycle Management (ILM) group.

Senior Software Engineer — IAC — 2014 – 2015

- Worked on search and search suggestions using NLP and Reinforcement Learning

Data Scientist — Northern Concrete — 2012 – 2014

- Built Agent-based simulations for econometric forecasting
- Integrated real-time sensor data into custom throughput forecasting platform for anaerobic digestors
- Built financial forecasting models using a combination of Fourier analysis to model periodicity, and ARIMA as a baseline.
- Worked on energy and commodity price prediction time-series models

Software Engineer	MyPublisher	2012
Management and Finance Consultant	NPS	2006 – 2012
Intelligence Analyst	US Army	2004 – 2005
Web Developer	Sammans Electronics	2003 – 2004
IT Technician	Advanix	1998 – 2003
Help Desk	Montclair State University	2000 – 2001