

WORK EXPERIENCE

Humane Intelligence

Engineering Advisor

Feb 2024 – Current

New York, NY

- Tech lead overseeing green-field development of platform for structured red-teaming of large language models (LLMs)

Spotify

Senior Machine Learning Engineer

Mar 2021 – Mar 2024

New York, NY

- Worked on Hendrix, Spotify's centralized ML platform;
- Tech lead for Hendrix's experiment-tracking layer. Led team of four engineers to deliver an MLflow-based MVP in half a quarter. Responsible for defining the strategy and roadmap for experiment-tracking and artifact management within Hendrix;
- Spearheaded development of Hendrix Registry as part of company-wide AI/ML governance initiative; collaborated with stakeholders in Legal, Trust & Safety, etc. to deliver an AI system and model card solution based on Backstage and Kubernetes-based declarative infrastructure under tight deadline constraints, resulting in over 100 models registered by 40 teams company-wide in less than a quarter;
- Brought Hendrix's flagship Kubeflow-based orchestration product to general availability; defined multi-quarter engineering roadmap in collaboration with product and engineering stakeholders across ML Platform and user teams; contributed to increase in Hendrix adoption of 50% and increase in measured user satisfaction of 10%;
- Active mentor and career coach to junior IC team members across the ML Platform org; held bi-weekly one-on-ones to provide technical/career mentorship and act as brainstorming partner. Successfully identified and carved out long-term areas of ownership for two junior ICs that have since become defining pillars of their respective careers.

NVIDIA

Senior Systems Software Engineer, AI Infrastructure

Dec 2019 – Jan 2021

New York, NY

- Worked on AI infrastructure for autonomous vehicle research and development;
- Initiated development of solution for "hybrid data/model parallelism" using a Ray-based parameter server design and Horovod to enable horizontally-scalable multi-task training;
- Co-delivered a Kubernetes-based scheduling mechanism to enable priority access to cluster resources for select use cases, e.g. prep for upcoming external demos, via virtual "resource shares".

Twitter

Machine Learning Software Engineer

Aug 2018 – Dec 2019

New York, NY

- Member of Cortex, Twitter's central ML platform organization. Worked on: workflow orchestration; experiment management/iteration; and overall ML engineering productivity;
- Enabled distributed training of TensorFlow models in Apache Mesos from an Airflow pipeline via Deepbird, Twitter's TensorFlow-based model training/evaluating/serving framework

Uber

Software Engineer, Observability

Jul 2016 – Jul 2018

New York, NY

OkCupid

Software Engineer

Jul 2015 – Jul 2016

New York, NY

EDUCATION

University of Chicago B.S. Computer Science, B.A. Economics

2011 – 2015

SPEAKING

TWIMLcon AI Platforms, "How Spotify is Navigating an Evolving ML Landscape with Hendrix Platform"

Oct 2022

MLconf, "Empowering Traceable and Auditable ML in Production at Spotify with Hendrix"

Mar 2022

KubeCon + CloudNativeCon, "Scaling Kubeflow for Multi-tenancy at Spotify"

Oct 2021

SKILLS

- **Programming Languages:** Python, Go, C++, Java
- **Machine Learning and MLOps:** Ray, Kubeflow, Airflow, TensorFlow, TensorFlow Extended (TFX)
- **Infrastructure and Distributed Systems:** Google Cloud (GCP), Kubernetes, Terraform, Prometheus, gRPC, Docker

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Also available at: <https://jonathanjin.in>