JONATHAN JIN

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SELECT WORK EXPERIENCE

Humane Intelligence

Engineering Advisor　　　　　　　　　　　　　　　　　New York, NY, Feb 2024 – Current

"Fractional" tech lead and architect. Partner with the CEO to define and execute on engineering strategies, including hiring and vendor selection. Contribute in hands-on capacity for technical proofs-of-concepts.

Spotify

Senior Machine Learning Engineer　　　　　　　　　　　New York, NY, Mar 2021 – Mar 2024

Senior member of the ML Platform organization; contributed to and maintained Hendrix, Spotify's centralized machine learning platform. Primarily focused on managed multi-tenant compute infrastructure for Kubeflow and Ray in GCP. Later shifted focus to AI/ML governance and artifact/experiment management solutions.

- Evaluated Ray for adoption into the Hendrix platform in collaboration with the maintainer team at Anyscale; informed the development of Hendrix's initial centralized multi-tenant Ray instructure based on KubeRay;
- Spearheaded development of Backstage-based model card solution in collaboration with non-technical stakeholders (Legal and Trust & Safety) in preparation for the EU Digital Services Act;
- Brought Hendrix's flagship Kubeflow-based orchestration product to general availability; defined multi-quarter engineering roadmap in collaboration with product and engineering stakeholders spanning infrastructural (SLOs, observability) and user-facing (documentation, API cleanliness) needs.

NVIDIA

Senior Systems Software Engineer, AI Infrastructure　　　New York, NY, Dec 2019 – Jan 2021

Worked on AI infrastructure for autonomous vehicle research and development.

- Implemented prototype for horizontally-scalable model-parallel training for multi-task learning using parameter server approach based on Ray and Horovod;
- Implemented a custom Kubernetes scheduler for preemptible workloads and resource reservations in an on-prem GPU cluster

Twitter

Machine Learning Software Engineer　　　　　　　　　　New York, NY, Aug 2018 – Dec 2019

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

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
- **Infrastructure and Distributed Systems**: Google Cloud (GCP), Kubernetes, Terraform, Prometheus, gRPC, Docker