JONATHAN JIN

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SELECT WORK EXPERIENCE

Humane Intelligence

Feb 2024 – Current

Engineering Advisor

New York, NY

"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

Mar 2021 - Mar 2024

New York, NY

Senior Machine Learning Engineer

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.

- Contributed to technical evaluation of Ray for adoption into the Hendrix platform; collaborated with the Ray maintainer team at Anyscale to identify functionality gaps and steer Ray development roadmap, e.g. of Ray AI Runtime; informed the development of Hendrix's initial centralized multi-tenant Ray instructure based on KubeRay;
- Spearheaded development of Hendrix Registry as part of company-wide AI/ML governance initiative; collaborated with stakeholders in Legal, Trust & Safety, etc. to deliver a Backstage-based model card solution, 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. 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

Dec 2019 – Jan 2021

New York, NY

Senior Systems Software Engineer, AI Infrastructure

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

Aug 2018 - Dec 2019

New York, NY

Machine Learning Software Engineer

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

TWIMLoon AI Platforms, "How Spotify is Navigating an Evolving ML Landscape with Hendrix Platform" MLconf, "Empowering Traceable and Auditable ML in Production at Spotify with Hendrix" KubeCon + CloudNativeCon, "Scaling Kubeflow for Multi-tenancy at Spotify"

Oct 2022 Mar 2022 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