JONATHAN JIN

me@jonathanj.in
linkedin.com/in/jinnovation
github.com/jinnovation
huggingface.co/jinnovation

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
Senior Machine Learning Engineer   New York, NY

Senior member of the ML Platform organization; contributed to and maintained Hendrix, Spotify's centralized machine learning platform. Primarily focused on compute orchestration and infrastructure. Later shifted focus to AI/ML governance and artifact 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
Senior Systems Software Engineer, AI Infrastructure   New York, NY

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
Machine Learning Software Engineer   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

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