Ivan Morrow

Platform Engineer with over 5 years of experience providing first-class support to internal developers and operational teams. Extensive experience designing and optimizing scalable, reliable cloud and distributed systems. Proficient in Python, Kubernetes, GCP, and machine learning frameworks like PyTorch and TensorFlow, with a proven track record of enhancing observability, performance, and SDLC efficiency through data-driven insights.

Work Experience

Cloud Platform Engineer, Belvedere Trading

Oct 2024 - Present

- Designed and deployed scalable observability and monitoring solutions for GitLab Runner in Kubernetes, enhancing CI/CD pipeline efficiency and job performance with real-time insights.
- Provide first class support to internal engineers on our cloud development platform troubleshooting SDLC challenges, optimizing CI/CD pipelines, and driving continuous improvements in the software development lifecycle, aligning with DevOps best practices.
- Provision and manage cloud infrastructure using Terraform, ensuring scalability, reliability, and security.
- Developed robust data pipelines in Python to process and publish terabytes of data daily, leveraging GCP, BigQuery, and Airflow.
- Built reusable, internal tools using Python and Bash to streamline cloud operations, improve developer productivity, and enhance system observability.

Product Specialist - Electronic Trading, Belvedere Trading

Jan 2023 - October 2024

- Served as key collaborator and Level 2 support specialist, acting as a critical buffer between production support and development teams, resolving complex technical issues and ensuring seamless communication to enhance system reliability and developer productivity.
- Built real-time production health monitoring dashboards, tracking critical metrics (e.g., market data latency, throughput) to enable proactive issue detection and minimize system downtime.
- Improved system reliability and observability by deploying real-time monitoring, logging, and alerting solutions, reducing mean time to detection on production issues.
- Optimized trading system performance by reducing market data latency from 100-600ms to 5-15ms through strategic deployment of services.
- Developed automation tools in Python for data processing and production monitoring, driving operational excellence.

Production Engineer - Trading System, Belvedere Trading

Sept 2020 - Jan 2023

- Led overnight Level 1 production support (4 pm - 2 am) for a distributed trading system, diagnosing and resolving critical incidents under high-pressure conditions.
- Maintained and optimized a globally distributed trading system with hundreds of microservices across multiple data centers, ensuring high availability and low-latency performance.
- Built automated monitoring and alerting tools in Python to improve system reliability, reduce incident response time, and prevent recurring issues.

Machine Learning Undergraduate Researcher, Coe College

May 2018 - Aug 2018

- Designed and implemented a neural network in TensorFlow for neutron detection.
- Collaborated with research team to publish findings in a peer-reviewed paper.

Educational Background

Bachelor of Arts, Computer Science & Physics

Coe College, Cedar Rapids, IA
Aug 2016 - May 2020

- Double Major in CS and Physics

Contact

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Skills

- Python
- C++
- GCP
- Kubernetes
- Terraform
- Docker
- PyTorch
- TensorFlow
- Airflow
- SQL
- Bash

Project Work

- K8s based distributed LLM Inference Pipeline:
  - GitHub Repo
  - Built a scalable LLM inference API with Kubernetes, enabling autoscaling, load balancing, and optimized inference performance.
  - Integrated HuggingFace and PyTorch
- Quantized Flower-Classification Model (MobileNetV2 + Attention) – Edge TPU:
  - GitHub Repo
  - Optimized the entire pipeline: parallel data augmentation with TPUs, compiled and deployed final 8-bit model to Edge TPU
  - Demonstrated low-latency, on-device inference (<5 ms per inference)
  - Practiced hardware-aware design

Relevant Coursework

- Coursera - Machine Learning Specialization
- Fast.ai
- CS545 - Machine Learning
- ECE528 - Embedded Systems and Machine Learning