Jacob Crabtree

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Backend Engineer with 5+ years of experience designing and maintaining scalable data infrastructure, RESTful APIs, and ETL pipelines. Proficient in a variety of programming languages and big data technologies, including Python, SQL, PyTorch, Kafka, and Snowflake. Skilled in data modeling, optimization, and performance tuning to ensure efficient data processing and analysis at any scale. Successful in delivering quality code, maintaining detailed documentation, and managing updates and versioning in production.

CORE COMPETENCIES

Data Engineering | Data Pipeline Building | RESTful APIs | Machine Learning
Distributed Computing | Data Modeling | Site Reliability | Blockchain Technology

PROFESSIONAL EXPERIENCE

Sizzle | Sunnyvale, CA (Remote)
Backend Engineering Lead | September 2023 to Present

- Redesigned core ML platform using workflow orchestration framework (Prefect), leading to a 90% reduction in average stream processing time
- Grew app from its first 10K users to 100K+ users with thousands of paid subscribers by aiding in the launch of Stripe API and public Discord integration
- Organized production release process across all applications and ML models, resulting in consistent 2 week release cycles for newly supported games
- Introduced build and release versioning, automated rollbacks, healthchecks, replicated deployments, type-safety, and test driven development, leading to a large reduction in the engineering resources required for on-call support

Sizzle | Sunnyvale, CA (Remote)
Backend Engineer | September 2022 to September 2023

- Reached 99.9% uptime for all services by setting up core monitoring, logging, and alerting stack from zero as well as on-boarding all applications to Docker, Sentry, Loki, and Prometheus
- Designed and delivered company's first personalized email marketing initiative, which achieved a 3x higher open rate and a 5x higher click rate than generic email campaigns, leading to higher overall user retention
- Developed staging system across all applications allowing safe end to end testing of new features by using a complete and isolated replica of our full application stack, thus optimizing developer productivity with a 100% increase in total number of commits and reduction in average time-to-merge

Coindesk Indices | Stamford, CT (Remote)
Backend Engineer | December 2021 to March 2022

- Designed and deployed an API which led to a successful launch of the CoinDesk Smart Contract Platform Select Ex ETH Index; serves as a benchmark for a multi-million dollar fund at Grayscale, the largest digital asset manager in the US
- Played a key role in on-boarding company to Amazon Elasticache (Redis) service, which enabled company to launch its first new index product in ~2 years, while also avoiding costly and time intensive data migration efforts

Cognizant Technology Solutions | Plano, TX

Data Engineer | August 2019 to December 2021
- Provided technical consulting for a leading US bank by maintaining large scale compliance systems, monitoring customer transaction data, identifying possible money laundering, and delivering customer risk ratings
- Redesigned Pandas/Snowflake based ETL framework resulting in ~50x speedup on ~5x cheaper hardware through use of Apache Spark and an Amazon EMR cluster
- Identified source of a longstanding security vulnerability in client's software and traced it back to a race-condition in the snowflake-connector-python package; collaborated with engineers at Snowflake to design updates, thus resolving the security vulnerability and preventing the underlying race-condition for all future consumers of Snowflake

TECHNICAL SKILLS

Programming Languages: Python (Primary), Go, Rust, JavaScript/TypeScript
Databases: SQL/NoSQL, Postgres, Redis, MongoDB, Snowflake, Clickhouse, Kafka/RedPanda
Data Processing: Spark, Dask, PyTorch, Tensorflow, Nvidia Triton, CUDA
Workflow Orchestration: Prefect (Airflow alternative)
DevOps & Infrastructure: Docker, Kubernetes, Terraform, Ansible, AWS, Nginx/Traefik, Grafana/Prometheus/Loki, Linux

EDUCATION

Bachelor of Science in Mathematics, Michigan State University