Michael Chavinda

Seattle, WA • github.com/mchav

Experience

FIS Global / Senior Staff Software Engineer
JANUARY 2025 - PRESENT, SEATTLE, WASHINGTON

- Lead the Fraud detection inference and data science teams designing the ML model, data pipeline, and the A/B experimentation platform.
- Created the engineering and data science roadmaps/engineering process for a zero-to-one model build.

Google / Software Engineer
FEBRUARY 2017 - JANUARY 2025, SEATTLE, WASHINGTON

- Fraud Prevention (Google Payments + Google Search + Youtube): Technical lead and domain owner for various risk projects. Owned APIs for identity verification and fraud detection preventing $100M+ in annual losses.
    - Attack detection & tuning: Worked cross-functionally tuning and retraining models to avoid drift, adapt to new attack patterns, and minimise good revenue/customer impact.
    - Low-Latency Inference: Designed and deployed a distributed query classifier for ~7B sessions/day).
    - Graph mining from fraud detection: designed and implemented a graph learning implementation used for label propagation and user clustering to increase fraud detection recall and precision respectively.

Skills

- Programming languages: C++, Java, Python, Go, Haskell
- Systems architecture: Kubernetes, Docker, Terraform, Apache Kafka
- Data systems: Apache Iceberg, Spanner, Parquet, Apache Arrow, Kafka, MapReduce
- Cloud provides: AWS, Azure, GCP
- ML: XGBoost, SHAP, Sagemaker, Databricks, PyTorch

Projects

DataFrame - Haskell (Open Source) / Creator & Maintainer
JANUARY 2023 -PRESENT, SEATTLE, WASHINGTON

- Summary: Designed and created a dataframe implementation that balances type-safety and ergonomics better than prior art. Ships with a handwritten Parquet implementation.

Education

Colgate University / Computer Science
AUGUST 2013 - DECEMBER 2016, HAMILTON, NEW YORK

- The Laura Sanchis Award for Excellence in Research
- Edward P. Felt '81 Memorial Prize in Computer Science for contribution to the Computer Science community.

Publications

- *TATA: A Multilingual Table-to-Text Dataset for African Languages*, EMNLP (2023)