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STÉPHANE COUVREUR

ABOUT

I have a **passion for big data**, real-time processing and distributed systems.

EXPERIENCE

Cloudflare, Lisbon — *Senior Data Engineer*

APR 2022 - PRESENT

- Managed large-scale data applications on an on-premise Kubernetes cluster. Responsibilities included application orchestration, cluster and namespace management, auto-scaling, and CI/CD deployment.
- Transitioned Apache Spark ingestion pipelines to Golang, boosting peak read throughputs from ~85k to 1.2M rows/s from Postgres and processing >10B rows/day. Achieved a 94% reduction in application memory consumption and shortened ingestion time from 15 hours to 1 hour 20 minutes, utilizing b-tree index histograms to optimize read-replica performance.
- Monitored Kubernetes environments using Prometheus and Grafana, employing logs and metrics for troubleshooting containerized applications. Participated in PagerDuty on-call rotation to provide coverage outside of business hours.
- Ensured operational security of service credentials for Postgres and ClickHouse clusters with Saltstack and HashiCorp Vault. Maintained updated Debian Linux versions with resolved CVEs in applications using CI/CD and BitBucket automation.

Cloudflare, Lisbon — *Data Engineer*

JAN 2021 - MAR 2022

- Developed data pipelines in Apache Spark with throughputs of >30B rows and >5TB/day.
- Aggregated ClickHouse traffic and Prometheus metrics data from core and edge data centers.
- Built data lineage sensing tools in Airflow, reducing data lineage incidents by 37%. Reduced MTTR and number of incidents by >50% QoQ, saving a 22-person team >800 man-hours per quarter.

Feedzai, Lisbon — *Data Scientist*

OCT 2018 - DEC 2020

- Developed ML models detecting transaction fraud with 78% $ recall at 1% FPR in Apache Spark.
- Built data pipelines on Apache Hadoop clusters to train models on >1B rows of data.
- Supported production systems with throughputs of >2k events/s and <200ms latency at 99.999%.

EDUCATION

UCL, London — *Master's Degree, Mechanical Engineering*

SEP 2013 - JUN 2017

- Thesis in Computer Science and Medical Imaging.