Edward Kong

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EXPERIENCE

Meta - Data Engineer
Aug 2024 - Present   New York, NY
- Define, design, and implement methodologies to identify power & thermal inefficiencies across wearable devices
- Build, refactor, and maintain scalable pipelines (Python, SQL) to generate and transform raw telemetry into actionable metrics that guide System Health and battery life optimizations
- Designed and implemented a field-based methodology for calculating real battery life, replacing the existing topline battery life projection, resulting in 17% more accurate executive reporting
- Develop metrics and attribution models for power and thermal stability, guiding targeted cross-functional collaboration, achieving a 9x improvement in idle power efficiency to date
- Implement anomaly and regression detection systems to monitor power stability, flagging 5 regressions early, preventing degradations from shipping to release builds

Deutsche Bank - Data Engineer
Dec 2021 - Feb 2023   New York, NY
- Led a team of 3 developers in reengineering ETL pipelines for anti-money laundering (AML) monitoring
- Developed scripts (Python, SQL) to automate data preprocessing, improving data accuracy by ~20%
- Standardized workflow orchestration across diverse components, eliminating need for daily manual execution
- Applied machine learning techniques (Python) to enhance Risk Indicator models, improving accuracy

Deutsche Bank - Data Analyst
Oct 2020 - Oct 2021   New York, NY
- Managed a Tableau Server project space on HDFS, supporting broad workflows and regulatory compliance
- Created and automated metadata and data dictionary extraction with Tableau APIs (Python, GraphQL)
- Coordinated cross-functional teams to integrate Tableau controls into existing ETL workflows (Control-M)
- Supported ETL workflows to ensure high data availability and reliability (Hadoop, Hive, Impala, Kafka)

ADP Lifion - Application Developer
Mar 2019 - Mar 2020   New York, NY
- Built an award-winning application suite, StandOut, focused on improving employee engagement
- Designed efficient and scalable big data architectures and migrated pre-existing data using scripts and APIs
- Developed utilization metric visualizations and extrapolated data to improve application functionality
- Oversaw release handoffs and collaborated with users/clients to provide ad-hoc support and gather feedback

EDUCATION & CERTIFICATIONS

B.S. Computer Science, 2018
New York University, Tandon School of Engineering

AWS Certified Cloud Practitioner, 2023
Tableau Desktop Specialist, 2021

SKILLS

Languages & Tools: Python, SQL, NumPy, Pandas, SQL, GraphQL, Tableau, Jupyter, Git, Mercurial
Database & Query Engines: Hive, Impala, Presto, Trino, PostgreSQL
Infrastructure: Kafka, Spark, Hadoop, Airflow, AWS, Docker, Kubernetes

PROJECTS

Dex Chess Engine, 2023 - Present
github.com/edwardkong/Dex
- Designed a chess engine using pure Python, currently 1400 rated at search depth 6
- Implemented advanced techniques for memory management and performance optimization including bit mask representation, alpha-beta minimax search, Zobrist hashing, transposition caching, quiescence search
- Integrated with AWS Lambda for scalable, serverless compute and UCI protocol for API communication
- Training a machine learning model on 7M chess games (2TB PGN data) to replace heuristic evaluation