

LINYI (LINCOLN) GUO

Toronto, ON | (+1) 613-630-0521 | lincoln.gly@gmail.com | [LinkedIn](#) | [GitHub](#) | [Blog](#)

SUMMARY

Data-driven software and quantitative developer with 4 years of experience in building scalable data pipelines, automating workflows, optimizing quantitative models, developing data APIs and collaborating with cross-functional teams to deliver data-driven solutions. Proficient in Python, SQL, NoSQL, R and SAS, with a proven track record of optimizing data processes, reducing manual effort by 30-50%, and enhancing decision-making through actionable insights. Passionate about leveraging technology to solve complex problems and drive business growth. Holds an M.Sc. in Statistics, B.Sc. in Math, FRM certification, and expertise in ETL development, data integration, quantitative data analytics and machine learning.

WORK EXPERIENCE

Software Engineer, GBME, Scotiabank - Toronto, ON 2024.02 - Current

- Designed and implemented end-to-end data pipelines integrating Bloomberg, BNS, and vendor systems for real-time data queries and EOD data requests, ensuring seamless trading and reporting workflows
- Deployed Redis caching for Bloomberg data pipelines, significantly reducing latency and improving system performance
- Optimized Kafka streaming pipelines to enhance data consumption efficiency for high-frequency bond e-trading
- Maintained and enhanced back-end codebases and databases to ensure reliable data flow for trading and pricing systems
- Collaborated with cross-functional teams to deploy APIs and improve front-end GUIs, supporting daily trading operations
- Automated routine tasks (e.g., data retrieval, quality validation, data cleaning, report generation) and deployed into production, reducing manual effort and improving efficiency dramatically
- Led routine releases, infrastructure maintenance and upgrade, and disaster recovery (DR) testing to ensure system reliability
- Managed vendor relationships, access control, and provided DevOps support to maintain operational continuity

Risk Quantitative Developer, GRM, Scotiabank - Toronto, ON 2021.11 - 2024.02

- Built scalable ETL pipelines for large-scale trading datasets and maintained one of CCR data centres within BNS, ensuring efficient data processing and validation, and reducing repeating and manual workload by 30 - 50%
- Designed and optimized quantitative and risk models (SACCR & IMM), optimizing CCR exposure for over 3 billion CAD
- Collected and validated Monte Carlo simulations under different scenarios, ensuring accurate and seamless workflow
- Developed and deployed a Python-based stress testing framework with detailed documentation and unit testing into production
- Enhanced data validation rules and orchestrated monthly code releases, ensuring data accuracy and system reliability
- Created interactive dashboards to automate monitoring and reporting processes, enhancing team productivity dramatically
- Collaborated with IT and cross-functional teams to streamline data workflows and improve model efficiency

Statistical Programmer, Everest Clinical Research Company - Toronto, ON 2021.05 - 2021.10

- Produced formatted, precise, and validated statistical tables, listings and graphs (TLGs) with Python, SAS, and SQL
- Executed clinical trial database quality and integrity checks, leveraging TLGs for data review and cleansing
- Formulated SDTM database specifications, and programed and performed quality control of SDTM and ADaM datasets
- Maintained documentation of data and programming procedures in alignment with Corporate Governing Documents

SKILLS

SKILLS: ETL Development, Data Pipelines, Data Manipulation, Quantitative Data Analysis, Statistical Machine Learning

STACK: AWS, Azure, Airflow, PySpark, Kafka, Redis, Docker, GitHub, Jira, Rancher, Kubernetes, MongoDB, Swagger

CODING: Python, SQL, R, SAS, Bash, C++, Java, MATLAB

EDUCATION

M.Sc. in Statistics (4.0/4.0), University of Ottawa – Ottawa, Canada 2018.09 - 2020.08

B.Sc. in Mathematics (3.7/4.0), Zhengzhou University – Zhengzhou, China 2014.09 - 2018.07