# LINYI (LINCOLN) GUO

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#### **SUMMARY**

- Over 5 years of professional experience in quantitative analytics, risk management, financial modelling, database development, statistical modelling and machine learning
- Demonstrated records of enhancing data pipeline development, facilitating capital accuracy, optimizing financial models with quantitative methods and business intelligence tools
- Outstanding analytical skills with ability to convey the story behind data clearly and succinctly
- Proficient in programming languages/tools such as Python, SQL, Bash, R, SAS, MATLAB, Power BI and Tableau
- Excellent team player and positive self-starter with great adaptability to a fast-paced environment
- A motivated life-long learner with a passionate in quantitative finance and investment

## PROFESSIONAL EXPERIENCE

# Manager, Quantitative Analytics, The Bank of Nova Scotia - Toronto, ON

**November 2021 - Current** 

- Host and monitor counterparty credit risk exposure and relevant regulatory capital calculation for the entire trading business
- Enhance and develop production code release based on requirements from OSFI, BCBS and various stakeholders
- Collaborate with trading desks and IT to fix system bugs and data issues, aggregate and analyze all trading data
- Prominently reduce manual workload and daily workflow running time by automation, optimazation and data visualization
- Lead each CCR month end clearing procedure and execute quarterly operational reports for senior management
- Operate daily communications with numerous stakeholders' requests

## Statistical Programmer, Everest Clinical Research Company - Toronto, ON

May 2021 - October 2021

- Performed clinical trial database quality/integrity checks by generating SAS data TLGs for data reviewing and cleaning
- Developed SAS programs and generated complete, accurate and validated statistical TLGs in well-defined formats
- Programed and performed quality control of SDTM and ADaM datasets according to the dataset specifications
- Managed electronic data transfers from trial sponsors or other external clinical trial data vendors

#### Research & Teaching Assistant, University of Ottawa - Ottawa, ON

September 2018 - October 2020

- Brought down the prediction error (MSE) by 25% on average for the US unemployment dataset by applying hidden Markov models (aka state space models) and Bayesian analysis
- Constructed HMMs to break down retail sales datasets, and achieved better visualization results using R and Python
- Customized HMMs under specific parameters and adopted parallel computation to accelerate the training
- Delivered tutorial courses and graded assignments and test paper in Math and Stat for over 700 undergraduates

#### Data Analyst, China Life Insurance Company - Henan, China

**July 2016 - September 2016** 

- Maintained the local branch's database with SQL daily, including updating, inserting and removing data
- Collected, input and analyzed clients' data from salesmen, marketing channels and other sources
- Utilized Excel to compute statistical data and draw diagrams to provide actionable insights upon clients' data
- Compilated visualised analysis reports and presented the results for decision making

# **EDUCATION**

M.Sc. in Statistics, University of Ottawa - Ottawa, Canada

September 2018 - October 2020

GPA: 9.8/10.0

B.Sc. in Mathematics, Zhengzhou University – Zhengzhou, China

**September 2014 - June 2018** 

GPA: 3.7/4.0

## **TOOLKIT & CERTIFICATE**

Toolkit: Python, SQL, POWER-BI, R, SAS, MATLAB, Tableau, Git, bash, SAS, R, Microsoft Office, Markdown, LaTeX Certificates: FRM Exam Passed (GARP), AWS Certified Cloud Practitioner (AWS), IBM Data Science Professional Certificate (IBM), Deep Learning (Deeplearning.ai), SAS 9.4 Advanced & Based Programming (SAS)