Md Ahad Khan

Ph.D. Economics (c)

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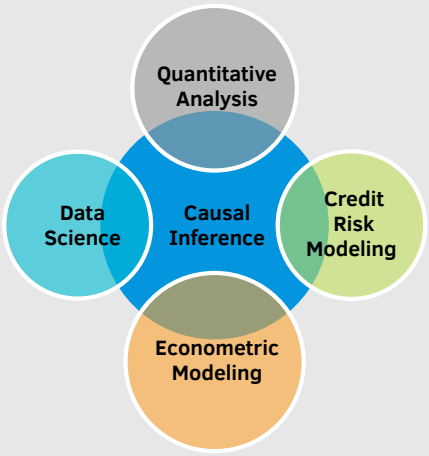
Key Skills



Programming

R - (Tidyverse, Ggplot, Sparklyr)

Python- [PCAP Certified]

MySQL

Tableau

Education

Ph.D., Economics
University of Kansas, Lawrence, KS
Aug,2018- Aug,2023(**Expected**)

M.A., Bank Management
Bangladesh Institute of Bank Management
2011-2012 | Dhaka , Bangladesh

B.Sc(Hons)., Physics
University of Dhaka
2004-2008 | Dhaka , Bangladesh

Experienced **applied economist** with a background in **causal inference**, model development, and **machine learning** techniques, as well as **five** years of banking experience in **credit risk** with working knowledge of accounting and corporate finance as a **credit analyst**

Experience

May 2022 - Present — **Research Assistant** — University of Kansas

- **Environmental Poliy Lab - Economics Department**
  - Designed econometric models that identify "CWA reduces 62.5 percent toxic emission substitution".
  - Developed a Simulation of regulatory stringency (CMP) to test econometric models.
- **Institute for Policy & Social Research**
  - Cleaned and processed data (45GB+) using R Sparklyr & MySql.
  - Performed statistical,quantitative, and qualitative analysis.

Jan 2010 - Aug 2015 — **Credit Analyst** — Prime Bank Ltd, Dhaka, Bangladesh

- **Credit Risk Management**
  - Developed credit risk rating / score cards for the credit appraisals
  - Generated predictive models with default and financial data
  - Documentation and testing for Probability of Default, Expected loss at Default models
- **Model Risk Management**
  - Analyzed the risk weighted assets (rwa) forecasts in the context of CCAR (Basel-II).
  - Provided expertise on the regulatory capital rules to risk, and business-aligned teams.

Research

Doctoral Dissertation: *Application of Causal Inference in Environmental Policy Evaluation.*

- Does Clean Water Act reduce regulation induced toxic substitution (JMP)
- Impact of High Priority Violation Enforcement on firms' toxic water discharge and substitution
- How far is too far: Impact of distance between NAAQS violating monitor and facility emission

Econometric Tools: • Staggered DiD • Synthetic Control • Stacked Event Study.
Machine Learning Tools: • Random forest • XGBoost • KNN • PCA

Projects

- Credit card fraud detection with machine learning tools in python.
- Environmental violation detection with ML approaches in python.

Presentations

AERE 2022 Summer Conference (June 1 - 3, 2022),
AERE @ SEA 2022 (November 19-21,2022)

Scholarships & Teaching

University of Kansas

- Edmund Learned Scholarship (Summer 2022)
- Oswald Summer Scholarship (Summer 2019)
- Graduate Teaching Assistant (Fall 2018 – Spring 2022)