Saruul Khasar

• https://saruulkhasar.github.io

in https://www.linkedin.com/in/saruul-khasar

SUMMARY

A former quantitative economics Ph.D. student with 5+ years of experiences in forecasting, data analysis, data manipulation, and data visualizations. Proficient with business intelligence and statistical analysis tools.

TECHNICAL SKILLS

Languages: Python, PostgreSQL, R

Technologies: Git, Tableau, Power BI, Microsoft Excel, HTML, CSS, LaTeX, Eviews, Stata

WORK EXPERIENCE

Division of Financial Management, State of Idaho

Boise, ID

Forecasting Economist | Data analyst

Nov 2020 - present

- Developed a new statistical prediction model for Tax Relief Fund using SARIMA and Regression models; reduced testing set errors by approximately 30 percent, reported and re-evaluated the prediction outcomes every month.
- Designed, developed, and maintained relational database system for the State Personal Income tax on PostgreSQL; cleaned and manipulated 20+ years of raw Excel spreadsheets dated back to 1991 on Python.
- Built and maintained tax revenue and budget dataset dashboards on Tableau to help narrow down critical forecast model components and constant fine-tuning for revenue and budget forecast models.
- Constructed and maintained visualization codes for <u>monthly</u> and <u>quarterly</u> reports using Python visualization packages including matplotlib, seaborn, and plotly.
- Constructing State budget forecasting models by cleaning and manipulating datasets collected from multiple State agencies; creating Tableau dashboards for preliminary descriptive analysis and building regression and ARIMA type regression models for Top 10 components of the State budget.

NewPoint.io Seattle, WA

Data Analyst | Project Manager intern

Jun 2020 - Nov 2020

- Led 16-person data analytics team to develop an index metrics scaled from 1 to 100 to measure students' job-related experiences and the strength of profile matches for prospective employers.
- Cleaned and manipulated 8 million computers' specifications and settings dataset (size: 4GB), and trained Random Forest and CatBoost models on Python to predict the computer's probability of getting malware. Summarized findings on Power BI dashboard and provided recommendations to the project owner.

Central Bank of Mongolia

Ulaanbaatar, Mongolia

Research Economist

Mar 2015 - Aug 2018

- Produced financial data analysis on regular basis using regression and data visualization methods. Delivered reports and policy recommendations to decision makers to help ensure the stability of banking system with 14 commercial banks and 12 billion USD worth of assets.
- Conducted balance sheet and income statement analyses, and identified early signs of bank liquidity problem using stress tests. Provided 260 million USD worth of lending to banks with liquidity problems.
- Published Macroprudential Policy analysis <u>research paper</u> in The South East Asian Central Banks (SEACEN) Research Journal.

Education

University of Washington, Seattle	MA in Econometrics and Quantitative Economics	Sep $2018 - Jun 2020$
Coursework: Advanced Statistics, Programming, Database Management, Time-Series Analysis		
University of Michigan, Ann Arbor	$MA\ in\ Applied\ Economics$	Sep $2013 - Dec 2014$
Coursework: Statistics, Quantitative Methods, Econometrics, Applied Business Forecasting		
National University of Mongolia	$BA\ in\ Economics$	$Sep\ 2008 - Jun\ 2013$
Coursework: Linear Algebra, Econometrics, Mathematical Economics, Economic Modeling		