Enkhmanlai “Manlai” Amarsaikhan

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Summary

An economist / analyst with 5+ years of experience in cleaning, manipulating and exploring data, and using data mining models to deliver insights and implement solutions to social and economic problems. Have an advanced understanding of statistical, mathematical and other analytical methods and is an effective Python programmer.

Skills

- Languages: Python (scikit-learn, pandas, numpy, statsmodels), SQL, Git Bash, LaTeX, Matlab
- Data Visualization: Matplotlib, Seaborn, Tableau
- Database Management: SQLite, BigQuery, MySQL
- Supervised / Unsupervised Machine Learning: Regularization with Lasso, Ridge, kNN, Random Forest, Linear/Logistic Regression, Bagging/Boosting Models, Model Evaluation, Cross-Validation, Grid-Search
- Neural Networks: Regularizing Dense and/or Convolutional NN, LSTM
- Natural Language Processing: Tf-idf, NLTK
- Economics: Statistical Analysis, Experiment Design, Applied Econometrics, Research Methodology, Causal Inference, ARIMA/SARIMAX, VAR, A/B Testing

Experience

General Assembly — Sep - Dec 2022
Data Science Immersive Student — Remote

- Housing Price Prediction
    - Cleaned and explored a housing market dataset, feature-engineered and designed a linear regression model that predicts 92% of the variation in housing prices
- Subreddit Classification
    - Built a module that scrapes Reddit data, extracts features using NLP and employs grid-search to tune hyperparameters of ML models such as logistic regression, SVM, random forest and bagging/boosting models
- Collision Prediction in NYC
    - Built a classification model that classifies the severity of vehicle collisions in NYC that correctly classifies the positive class 30 percentage points better than the baseline.
    - Built an autoregressive LSTM neural network that correctly forecasts the weekly collision total with an R^2-score of 0.99.

Oyuny Tsomorlig Impex LLC — Sep 2017 - Aug 2022
Data Analyst / Economist — Remote

- Applied statistical, mathematical and other analytical methods to analyze and interpret key points from gathered data

- Led a team of economists in designing and conducting surveys and field experiments to collect data, cleaning and wrangling data, and building and analyzing data mining models
- Developed monthly roadmaps based on impact, effort and results, worked with stakeholders to achieve short-term and long-term goals on projects
- Collaborated with researchers by implementing machine learning models to analyze image data whose results were presented at an international conference

Boston College — Sep 2015 - Aug 2020
Graduate Student Researcher — Chestnut Hill, MA

- Conducted own research in the field of microeconomics and matching market theory, produced 2 academic research papers and presented results to research workshops
- Wrote scalable and effective code in Python and Matlab for matching theory algorithms, linear and nonlinear optimization problems that were used to analyze and interpret data in research
- Designed, prepared and taught 3 elective-level college courses as the sole instructor for 3 years
- Helped students better understand course material by working through problems and relating course material to real-world situations

Awards

Japanese Government (MEXT) Scholarship (Full Tuition Remission and Stipend) — 2007 - 2012
Best Paper Award, “Geoinformation-2012” International Conference — 2012
Full Tuition Remission and Stipend, Boston College — 2013 - 2018

Education

General Assembly — Sep - Dec 2022
Data Science Immersive Student — Remote

Boston College — Sep 2015 - Aug 2020
Non-degree coursework — Chestnut Hill, MA
Passed doctoral comprehensive examinations in top-5% of class

Boston College — Sep 2013 - May 2015
MA in Economics — Chestnut Hill, MA

University of Tokyo — Apr 2008 - Mar 2012
BA in Economics — Tokyo, Japan
Placed 1st overall on entrance examinations for MEXT scholarship students