ZELONG (ERIC) ZHANG

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Data scientist with 6+ years in computational modeling and data analysis. Experienced at applying machine learning and statistical models to improve user experience and decision-making.

SKILLS

Programming: Python (Jupyter Notebook, Visual Studio), AWS, SQL, Bash

ML libraries: pandas, NumPy, scikit-learn, Matplotlib, Bokeh, statsmodels, NLP, TensorFlow

Quantitative: Statistics & Probability, Linear Algebra, Multivariable Calculus, Optimization Methods

EXPERIENCE

AI Data Scientist, Change Healthcare, Seattle, WA Jan 2021 – Present

Assess the denial risk of health insurance claims to reduce claim rework

- Build AI models and end-to-end solutions to detect denials due to the incorrect procedure info
- Coordinate the efforts among data science and engineering teams to create solutions live on AWS
- Spotlights Awards "Align - Fosters Teamwork" and "Navigate - Advances Innovation"

Predict delivery date of payment explanation (EDI 835) to reduce the call volume of tech support

- Analyze historical trends through AWS and provide estimations tailored to stakeholders' needs
- Long-Term Incentive Award based on overall performance and expected future contributions

Fellow, Insight Data Science Fellowship, San Francisco, CA Sep 2020 – Dec 2020

Developed a predictive model to forecast user churn in THE RUN EXPERIENCE ™, a fitness app

- Fined-tuned NLP BERT model by hand-labelling to extract text sentiment
- Provided a 4-week time window for retention team to engage users at high risk of churning
- Performed descriptive analysis to estimate customer lifetime value using time-series data

Reviewer, NeurIPS, Machine Learning and the Physical Sciences Since 2019

Trainee, Deep Learning Summer School, Lawrence Berkeley National Laboratory Jul 2019

- Obtained hands-on experience of TensorFlow 2.0 on high-performance computers

Research Assistant, Geology & Geophysics, Louisiana State University Sep 2014 – Aug 2020

Predict material formation of binary systems using machine learning algorithms

- Applied a stacked ensemble (Random Forest, LightGBM, Naïve Bayes, etc.) to improve prediction

Forecast environmental degradation rates of nuclear waste materials using regression analysis

- Developed predictive models using time-series data to improve nuclear materials disposal safety.
- Produced an award-winning short film showcasing cross-team synergy (US Dept. of Energy 2019).

Identify optimal condition for shale oil extraction using molecular modeling on HPC

- Generated and analyzed data on the scale of terabyte to predict optimal temperature and salinity

EDUCATION

Ph. D. in Computational Geochemistry, Louisiana State University, Baton Rouge, LA Sep 2020

Dissertation: Investigating Geochemical Processes on Materials Related to Energy and Environment

- Honor, Leadership LSU (2015)

M. Sc. in Geochemistry, Stony Brook University, Stony Brook, NY May 2014

B. Sc. in Geochemistry, China University of Geosciences, Wuhan, China Jul 2010