WEN ZHANG

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DATA SCIENTIST

Predictive Modeling | Statistical Analysis | Machine Learning

AREAS OF **E**XPERTISE

Areas of Expertise

- Statistical Machine Learning: (GBM)XGBoost, Random Forest, SVM, KNN, AdaBoost, LSTM, Logistic regression.
- Data Analytics: Data Mining & Validation, Big Data Analytics, ETL Processes, Credit Scoring.
- Risk Modeling: Predictive Risk Modeling, Financial Risk Modeling, Fraud Detection & Prevention
- Optimization Methods: Stochastic Processes, Linear programming, Multi-Objective Optimization (NSGA-II)
- Programming & Tools: Python, SQL, SAS, Angoss
- Certification: Deep Learning Specialization

PROFESSIONAL EXPERIENCE

Experienced Data Scientist Specialist with 12 years of expertise in consumer credit underwriting, predictive modeling, and fraud detection within the banking, specialty finance, and fintech sectors. Demonstrated success in developing innovative FCRA and non-FCRA risk models, particularly for payment platforms and small business lending, to optimize underwriting processes and enhance decision-making accuracy.

Proficient in leveraging advanced machine learning techniques, such as GBM (XGBoost), logistic regression, and multi-objective optimization, to drive business performance. Skilled in modernizing legacy systems, integrating diverse datasets, and automating analytics pipelines for seamless scalability. A proven leader in delivering actionable insights and strategic solutions that improve operational efficiency and meet regulatory compliance.

PROFESSIONAL EXPERIENCE

EQUIFAX, INC., Las Vegas, Nevada

Data Scientist Specialist - Banking and Lending, 7/2024 to Present

Developed credit risk models served for fintech and subprime client and streamlining processes to improve client outcomes. Demonstrated technical leadership by solving compliance challenges and driving automation efforts.

- Led the end-to-end development of a non-FCRA risk model tailored for a major payment processing company, leveraging Equifax data assets to optimize credit decisioning and enable better risk segmentation for small business clients.
- Designed and implemented a robust FCRA-compliant credit risk model for the subprime auto lending vertical, addressing unique challenges in underwriting while improving approval rates and portfolio performance.
- Collaborated with credit unions and fintech companies to customize and deploy production-ready

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- credit risk models, ensuring seamless integration into existing systems and adherence to regulatory requirements.
- Spearheaded the implementation of Gradient Boosting Machine (GBM) models, resolving compliance challenges related to black-box reason code issues. Developed transparent and interpretable model explanations to meet regulatory standards while maintaining high predictive performance.
- Led the modernization of process automation workflows by transitioning from legacy tools like SAS to advanced, scalable frameworks. Designed and implemented end-to-end automation solutions, improving efficiency, reducing operational costs, and ensuring seamless adoption across teams.

Data Scientist Specialist - Specialty Finance, 7/2018 to 6/2024

Effectively delivered advanced analytics solutions and model automation to elevate specialty finance client portfolios. Played a key role in integrating alternative data and optimizing credit scoring strategies.

- Provided strategic guidance to clients on leveraging prime credit data in conjunction with the Advanced Machine Learning Engine (AME), enabling the evaluation of alternative data sources for improved credit risk insights. Delivered tailored solutions to enhance underwriting precision and portfolio performance.
- Facilitated integration between Teletrack(top Specialty Finance Consumer information owner) and Equifax analytics teams, effectively bridging disparate data systems and workflows. Streamlined processes for unified data analysis, enabling seamless collaboration and unlocking new analytics capabilities across platforms.
- Designed a flexible and reusable generic credit scoring model for the specialty finance vertical, addressing the unique needs of subprime borrowers. The model significantly improved accuracy and scalability for diverse lending products.
- Partnered with AME development teams to redesign and enhance automation pipelines for sparse data processing. Introduced innovative techniques to streamline hyperparameter tuning and feature engineering, reducing model development time and improving predictive performance.

DATAX, LTD, Las Vegas, Nevada

Data Scientist II (Fraud / Underwriting), 3/2017 to 07/2018

Focused on fraud and underwriting, partnering with multiple lending clients to develop underwriting rule improvement strategies via Angoss decision tree. Perform SAS-based data mining and cleansing.

- Analyzed Teletrack acquisition data to integrate and build the largest consumer database in the specialty finance sector, enabling improved analytics and client decision-making.
- Designed and deployed a price-reject model for a key client portfolio, leveraging discrete optimization techniques to maximize profitability and minimize risk.
- Created a scalable modeling pipeline to automate hyperparameter tuning and WOE bin adjustments, enhancing model development speed and accuracy.
- Implemented advanced feature processing pipelines to handle sparse data efficiently, improving the predictive power of risk models.

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PARTNERWEEKLY, LLC, Las Vegas, Nevada

Data Scientist, 11/2012 to 3/2017

Led machine learning initiatives to optimize financial services processes and reduce fraud risk. Collaborated with clients on strategies to enhance business performance and drive market growth.

- Analyzed Teletrack acquisition data to integrate and build the largest consumer database in the specialty finance sector, enabling improved analytics and client decision-making.
- Designed and implemented robust machine learning systems for customer risk profiling and fraud detection, incorporating advanced algorithms to improve the accuracy and reliability of risk assessments in real-time.
- Achieved a 13% reduction in fraud leads and a 30% improvement in lender lead prices by leveraging data-driven optimization strategies, including targeted adjustments to underwriting and lead allocation processes.
- Developed and deployed real-time analytics systems and interactive dashboards, providing actionable insights and ensuring efficient KPI monitoring for better decision-making and operational control.
- Utilized advanced clustering techniques to optimize advertising budgets, effectively reallocating resources to maximize financial media spend and improve campaign ROI.

EDUCATIONAL BACKGROUND

Deep Learning Specialization, 2018
COURSERA

Nanodgree in Machine Learning Engineer, 2016 UDACITY

Master of Science in Applied Statistics & Operational Research, 2012
BOWLING GREEN STATE UNIVERSITY, Bowling Green, Ohio

Bachelor of Science in Applied Mathematics, 2010 SHANGHAI JIAOTONG UNIVERSITY, Shanghai, China