LI AI

4405 Hawkhurst Dr, Plano, TX 75024
Cell Phone #: (210)-550-7495 *email: uniwander@gmail.com*

TECHNICAL/BUSINESS SKILLS

- Extensive experiences in data analytics and modeling in insurance, banking and marketing
- Technical lead responsible for managing projects and mentoring junior data scientists
- Proficiency in Python, R, SQL, PySpark, AWS and GCP

EDUCATION

MS in Data Science, Indiana University Bloomington *2018-2021*

PhD Studies in Civil Engineering, University of Illinois at Urbana-Champaign *2005-2007*

MS in Civil Engineering, University of Illinois at Urbana-Champaign *2004-2007*

BS in Materials Science and Engineering, Tongji University *1999-2003*

WORK EXPERIENCE

Tech Lead/Senior Data Scientist, Verizon, Dallas, TX *5/2022-present*

I am leading a team of data scientists that are responsible for managing the churn model portfolios for various Verizon businesses and products.. Example projects include:

- Studying the behavior of Verizon wireless customers by understanding 'who', 'why' and 'how' of the population that would potentially churn.
- Building real-time targeting systems by developing NLP models for chat, call transcript and online search data within Verizon.
- Design, execute and evaluate marketing campaign experiments by utilizing model outputs and BI analytics.

Senior Data Scientist, State Farm, Dallas, TX *9/2021-5/2022*

Data Scientist, State Farm, Dallas, TX *7/2019-8/2021*

I led the efforts to use machine learning and statistical modeling to support our claims business for intelligent decision making and efficient claim processing so that we better serve our customers. Example projects include:

- Led a project to utilize telematics data to detect car crash and delivered a final application to replace vendor's product, leading to a breakthrough in such technology in SF. Signal processing techniques were used to derive rule-based models to determine the time and location of a possible crash and derive new features for downstream ML tasks, e.g. insurance premium models and crash severity models.

- Developed and deployed XGBoost models to classify the severity and complexity of auto injury claims for better routing. Created data ETL pipeline using PySpark to query and transform raw data stored in cloud (AWS). The models provide multiple outputs for different targets of interest, which are combined to create business strategy during claim handling process.
- Collaborated with team members to develop binary classification models to profile demand attorney letters into different categories using NLP techniques (BERT). The models were deployed to prioritize demand letters, speed up claim handling process and reduce the chance of costly litigation.
- Built ARIMA and VAR time series models to forecast incoming and outgoing claims. The models were deployed into dashboards to provide insights to leadership so that they can better plan the resources based on forecasted work volume.

AVP/Senior Quantitative Risk Modeling Analyst, Frost Bank, San Antonio, TX *10/2018-6/2019*

Quantitative Risk Modeling Analyst, Frost Bank, San Antonio, TX *8/2017-9/2018*

- Led the building and deploying of credit loss forecasting models for various portfolios (auto, real estate and commercial) for calculating allowance and reserve. Various techniques were used in the model development including age-time-cohort decomposition, MCMC and fractional logistic regression.
- Maintained and enhanced DFAST models for stress testing to fulfill regulatory requirements as part of the annual audit by the Federal Reserve.
- Prepared documentations and presented models for executives, internal audits and external examiners.

Senior Research Scientist/QC Manager , Boral North America, San Antonio, TX *2/2009-7/2017*

- Led the implementation of statistical experiment design methods and tests in R&D and production.
- Managed R&D projects and technical service projects on Boral's various building product portfolios.
- Identified market trends and needs for new building products. Inventors for 20+ patents.

Research Scientist, Nanodynamics Inc., Columbus, OH *10/2007-1/2009*

- Worked on R&D projects on innovative nano materials and products.