Zhen Shen

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SUMMARY

- ➢ Senior Data Scientist with 10+ year experience in Data Analysis, Visualization, Advanced Analytics, Risk Management and Portfolio Management.
- ➢ Self-motivated quick learner and problem solver. Strong analytical skills and committed to producing results promptly. Proven data processing background, with strong verbal and written communication and follow-up skills. Attention to detail and able to work thoughtfully and independently and manage multiple projects.
- ➢ *Programming*: Python, R, SQL, SAS
- ➢ *Extensive Skills***:** Tableau, RShiny, Machine Learning, AWS, INTEXcalc, Bloomberg, Trepp, Polypaths, Blackrock Aladdin, AnSer, PRIMA, MicroStrategy, DBeaver, DbVisualizer, Excel.
- ➢ Extensive experience in Software Development Life Cycle (SDLC) including Business Requirements Collection, Design, Data Modeling, Review of Solution; Testing and Communication as per Agile software development methodology.
- ➢ OMSCS Projects:
  - Built MySQL database and web interface using PHP.
  - Solved an optimization model to find the cheapest diet that satisfies constraints.
  - Designed an algorithm to pass Raven's Matrices (which is used to measure general human intelligence).

WORK EXPERIENCE

FANNIE MAE   *07/2008-Preset*

- ➢ *Data Scientist* – *SF Enterprise Risk Management/Finance Business Unit*   *03/2018-Present*
  - Designed, developed and automated Single-Family Risk Limit Dashboards in monitoring credit risk limits and tracking potential breach of limits.
  - Lead the team in transitioning to Cloud data.
  - Analyzed data trending of newly acquired loans and identified potential issues to the first line.
  - Built interactive Rshiny dashboard in monitoring credit risk and performance of newly acquired loans and the SF portfolio.
  - Identified key drivers in modified loan performance using machine learning techniques.
  - Designed and developed a process in identifying sellers who drove increases in riskiness
  - Produce Foreclosure Prevent report for FHFA
- ➢ *Market Risk Analyst* – *Capital Market Risk Management*   *01/2013-03/2018*
  - Measured, analyzed, managed and attributed market risk and return of Fannie Mae's retained portfolio. Monitored exposures and activities of trading desks based on data produced.
  - Analyzed changes in risk and return metrics due to model/position changes to ensure the changes are as expected.
  - Assessed the reliability of data and fair value processes, models, and results to ensure reliability of financial disclosures, daily market risk metrics, and performance attribution.
  - Coordinated with business and technical team to improve data collection and ensure integrity and consistency of data.
  - Lead end-to-end business projects to support Business Initiatives including Re-performing Loan Securitization, Major PFP and MRP (Market risk platform) releases. Responsibilities include identifying problems, defining release scope, performing data and model assessment, reviewing business requirements and technical solution, performing user testing and communicating with the business and technical team.
  - Supported the management to manage and mitigate model risk through model risk management and comprehensive model vetting. Responsibilities include managing model inventory, retiring out-of-dated models, tracking model issues, performing model vetting, designing and testing On-Top Adjustments.

➢ **Credit Risk Analyst**– *Capital Market Risk Management*   *07/2008-12/2012*

- Managed credit risk of $50 billion reverse mortgage portfolio, $20 billion CMBS portfolio and $230 billion distressed loan portfolio. Developed and produced monthly reports and ad-hoc reports for senior management.
- Calculated Intrinsic Value for the legacy portfolios (PLS, CMBS and Muni portfolio) and recommended Hold & Sale solution for management
- Monitored credit performance of ABS portfolio (credit card, auto loan and auto lease) and produced a monthly ABS report covering loss projection, CDR/CPR trending etc.

EDUCATION

GEGORGIA INSTITUTE OF TECHNOLOGY	Atlanta, GA
Online Master of Science in Computer Science- **OMSCS**	2018-Present
NORTH CAROLINA STATE UNIVERSITY	Raleigh, NC
Master of Financial Mathematics- **MFM**	2006-2008
RENMIN UNIVERSITY	Beijing, China
Bachelor of Business Administration	2002-2006