Chao Lin

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SUMMARY

Experienced R programmer and statistical modeler willing to research, study, and solicit help from various areas to understand the full picture before attempting to solve a problem. Looking for an opportunity where he can add value and continue to learn.

EDUCATION

Master in Mathematical Finance 2014
Boston University, Graduate School of Management Boston, MA
- Selectivity: 47 out of 1, 062 applicants

Bachelor of Science in Business Administration 2011
University of Pittsburgh, College of Business Administration Pittsburgh, PA
- Major: Finance Minor: Mathematics

EXPERIENCE

Charles Schwab, Risk Analytics/Modeling San Francisco, CA
Manager *2015*
- Developed Deposit Decay Model, using the multilevel linear mixed model, to predict the deposit balance decay for interest rate risk management. Conducted back-testing, sensitivity analysis, stress testing and model documentation. Identified the cash features of brokerage account, and cleaned the account-level and aggregated vintage-level data for model-building
- Created an R-Excel Deposit Decay user interface independently, for both internal technical development and external business usage. Monitored the model performance on monthly-basis
- Built Customer Behavior Model, to predict the propensity of cash transferred from brokerage account to Schwab Money Market Funds. Created and Identified the transfer indicator from account-level balances, and leveraged K-Nearest Neighbor algorithm to classify transfer behaviors, based on interest rate sensitivity and household assets
- Analyzed HELOC data with parallel computing in R. Supported the prepayment model development, credit data analysis and documentation.

Citizens Bank, Economic Capital and Stress Testing Group Boston, MA
Senior Quantitative Analyst, Assistant Vice President *2013-2014*
- Developed the Commercial Real Estate (CRE) wholesale model, leveraging logit regression on both CCAR macroeconomic variables and credit-quality factors. Cleaned and analyzed external Trepp CMBS datasets for model calibration. Explored CAP analysis to monitor the model accuracy
- Cooperated with Moody's CMM (Commercial Mortgage Metrics) team to customize CMM model for CFG, including subsetting and analyzing data based on collateral property types and regions
- Improved C&I wholesale model by creating the PD model for each industry sector. Selected macroeconomic variables into the sector PD model to differentiate risk drivers of different industries
- Maintained and implemented the wholesale stress testing spreadsheet interface for the purpose of back-testing and sensitivity analysis, using R and VBA to run both CRE and C&I models
- Supported student loan model development; combined Loan Science's expected loss equation with CFG's student loan portfolio data to predict gross charge-offs.
- Documented modeling process, underlying equations and codes of CRE, C&I and Student Loan models for the purpose of model validation
- Developed the loan-level auto prepayment model, using survival function techniques, to estimate prepayment and complement Moody's vintage prepayment model.

KEY COMPETENCIES

- Data Manipulation, Risk Modeling, Time Series, Machine Learning, Regression, Stochastic Calculus
- R, Stata, C++, Python, Excel, Matlab, SAS, SQL
- CFA Level I candidate

COMMUNITY LEADERSHIP

Founder, Public Relation & Marketing Chair of Pitt International Student Association at the University of Pittsburgh. Compiled an online-magazine targeted at international undergraduate students.

LANGUAGE

English, Mandarin, Japanese

INTEREST

Piano, Guitar, Graphic Design, Basketball