**David**:

[CCAR Quantitative Analyst, Technical Lead](https://www.linkedin.com/company/5705/)

[Company NameSantander Bank, N.A.](https://www.linkedin.com/company/5705/)

[Dates EmployedSep 2016 – May 2017](https://www.linkedin.com/company/5705/)

• Led a team of two financial engineers in the implementation of statistical loss forecasting models to support the Federal Reserve’s CCAR, the Office of the Comptroller of the Currency’s DFAST and the European Banking Authority’s EU-wide regulatory stress tests on a $50B portfolio

• Developed a Python MVC framework for model implementation that reduced implementation time from 2 to 3 months to one week, increased robustness through extensive unit testing, input parameter validation and version control and reduced execution time by approximately 95%

• Integrated model performance monitoring calculations and metrics in the implementation framework including Gini Coefficient, AUC-ROC, Kolmogorov-Smirnov test, Hosmer-Lemeshow statistic and Population Stability Index

• Coordinated Bank-wide implementation efforts with T&O and external consultants including system design and architecture

[CCAR Quantitative Analyst](https://www.linkedin.com/company/5705/)

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[Dates EmployedOct 2015 – Sep 2016](https://www.linkedin.com/company/5705/)

• Participated in the design and implementation of the Bank’s suite of wholesale loss forecasting models to support the Federal Reserve’s CCAR, the Office of the Comptroller of the Currency’s DFAST and the European Banking Authority’s EU-wide regulatory stress tests on a $50B portfolio

• Implemented a wide range of modeling approaches including statistical risk rating models, discrete-time Markov chain models for ratings migrations and logistic regressions

• Executed stress tests on a quarterly basis, coordinating with Treasury, MIS, model developers and other areas to gather inputs

• Presented input data and model methodologies and defended model results before LOB representatives and regulatory examiners

• Developed and documented a QA framework written in Python for model output results validation that included tests for regular expressions, upper and lower bounds and distributions properties

[Quantitative Analyst](https://www.linkedin.com/company/5705/)

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[Dates EmployedOct 2014 – Oct 2015](https://www.linkedin.com/company/5705/)

• Developed and executed loss forecasting models to support the Allowance for Credit Loss (regulatory capital) under the Basel II IRB approach for the Bank’s wholesale portfolios

• Applied several modeling techniques to estimate PD/LGD/EAD parameters including: logistic regression, rating migration matrices and machine learning algorithms such as classification trees

• Researched a random forest classification approach to PD estimation in the Bank’s Commercial & Industrial portfolio

• Documented credit risk model assumptions and procedures including risk driver selection, parameter estimations, management adjustments, data ETL in both SQL and R, back-testing and implementation

• Maintained and automated both internal and external reporting packages using VBA, SAS and R

• Designed a smoothing algorithm to correct anomalies in PD distributions due to missing or low quality data

**Andre**:

[CCAR Commercial Team Lead](https://www.linkedin.com/company/5705/)

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[Dates EmployedNov 2015 – Nov 2017](https://www.linkedin.com/company/5705/)

Managed CCAR commercial projects including bank wide strategic budget, documentation, ongoing monitoring of CCAR and BAU models, and Expert Judgement Models (EJM) from the loss implementation perspective

Implemented transitional programs for new director to assist with seamless management transition during crucial period

Defended CCAR development and implementation results between Business Lines, Model Development, and Risk

Implemented 3 Logit Models for CCAR (in R) with automated checking features.

**Yifan:**

• Independently designed vintage level PD, LGD model implementation tool in SAS for the bank’s largest retail portfolio: Mortgage and Home Equity portfolio and conducted UAT test within 1 month. The implementation tool is comprised of 25 modules with hundreds of lines in each module and could handle up to 10 macro scenarios at a time. The tool deals with large amount of data cleaning work for millions of loan level records with automated checking on input and output data accuracy.

• Designed the residual value model implementation framework in SAS for Auto Lease portfolio and conducted UAT test.

• Designed the non-model assumption solution using historical approach for Santander’s Credit Card, Consumer Other and Representation and Warranty portfolio.

• Lead a team of three with two new colleagues to perform model implementation, testing, checking, documentation, reporting and presentation for CCAR process credit loss models within 2 months. Proactively communicate with related groups to construct risk-reporting framework. Worked closely with new colleagues to help them understand model and reporting framework. Demonstrated strong commitment to team environment dynamics with the ability to contribute expertise and follow leadership directives at appropriate times.

• Worked closely with model development team to provide background business knowledge to support model developing, validation team.

• Received good and superior evaluation by supervisor in annual performance review.

**Jiaqi:**

-Participated in the design and evolution of the Bank’s existing suite of stress test forecasting models using SAS. Specialized in Mortgage/Home Equity/Auto Loan credit risk models.

- Lead the implementation of integrating raw model results into a framework that allowed for a comprehensive view of performance tracking, model result analysis and regulatory reporting automatically.