**Lin Cui**

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**Status:** U.S. Permanent Resident

**Summary**

* Five years of hands-on experience in model development and validation with extensive knowledge in mortgage products
* Solid background and training in mathematics/statistics/econometrics.
* PhD in economics with a strong research capability. Publication in top field journal.
* Hands-on experience in manipulating large and complex datasets efficiently.
* Excellent team player, quick learner, self-starter, detail oriented and with strong communication skills. Ability to work independently while handling multiple competing priorities in a fast-paced environment

**Work Experience**

**PNC Bank (1750 Tysons Blvd, McLean, VA 22102) 03/2015-Present**

**AVP, Analytics and Portfolio Management**

* Leading development of brand new late-stage transition models for CCAR/DFAST for residential real estate assets, including conforming, jumbo, HEIL and HELOC products. Responsibilities include designing model framework and segmentation strategy, building data, conducting model estimation and back-testing, and fine-tuning models based on test results.
* Developing new transition rate loss forecasting models for stress testing, valuation and reserve purpose, including default models for both mortgage and home equity products, and utilization/end-of-draw models for HELOC portfolio. Performing research to challenge, support, or improve modeling approaches. Developing new model frameworks in support of home lending strategies
* Reviewing and analyzing trends in stress test results, key assumptions, modeling enhancements and other regulatory expectations. Designing model improvements for the current CCAR run.
* Collaborating with line of business, Finance, and portfolio management partners on model factors, forecasts, performance, strength and weakness.

**Freddie Mac (1551 Park Run Drive, McLean, VA 22102) 05/2011-03/2015**

**Model Validation Senior**

* Lead reviewer of the company’s agency mortgage evaluation system that combines probability of default (PD), loss given default (LGD), prepayment models and cash flow calculations used for credit/counter-party risk, costing/pricing, asset/obligation evaluation and risk capital requirement.
* Periodically reviewed agency distressed asset and non-performing loan valuation, and D180 model for Structured Agency Credit Reference (STACR).
* Researched model appropriateness from both econometric and business sides, built alternative models for benchmark, conducted various statistical tests, evaluated model performance thresholds, performed other ad-hoc analysis and wrote model review documents.
* Made presentations to senior management about findings during the process. Responded to requests from internal and external auditors. Interacted well within and across teams on significant technical matters.
* Developed error-tracking procedure and testing plans to examine individual models as wells as model flow within the framework of valuation and risk management.

**University Center for Social and Urban Research (100 University Place, Pittsburgh, PA 15213) 07/2009-08/2010**

**Graduate Student Researcher**

* Designed and conducted research on foreclosure and neighborhood
* Performed spatial analysis in ArcGIS; prepared and analyzed property-level data for the Pittsburgh Neighborhood and Community Information System (PNCIS)
* Used Perl to scrape online deed and mortgage records

**Teaching Experience**

**University of Pittsburgh (230 S Bouquet St, Pittsburgh, PA 15260) 06/2011-08/2011**

**Lecturer**

* Designing the curriculum and teaching undergraduate labor economics course with econometric methods

**University of Pittsburgh (230 S Bouquet St, Pittsburgh, PA 15260) 08/2007-07/2009**

**Teaching Assistant**

* Lecturing for weekly review sessions, teaching material preparation, office hours, grading

**Research Experience**

**Publications**

* “Foreclosure, Vacancy and Crime” (with Randall Walsh), *Journal of Urban Economics, 87(2015) 72-84*

**Working Papers**

* “The Effect of Neighborhood Foreclosure on the Composition of Housing Market Transactions”
* “Marcellus Shale Drilling and Housing Market”
* “Does Low-Income Housing Tax Credit Program Affect Residential Segregation? – Evidence from California”

**Professional Activities and Memberships**

* Member of: the American Economic Association, the Southern Economic Association
* Journal referee for: Journal of Public Economics, Housing Studies, Land Economics, Economic Inquiry

**Education**

**PhD in Economics 08/2006-08/2011**

**University of Pittsburgh – Pittsburgh, PA**

Thesis: Three Essays on Urban Economics

**Bachelor in Economics (minor: English) 09/2002-07/2006**

**Tsinghua University - Beijing, China**

**Core Skill Sets**

* Solid training in econometrics and mathematics
* Programming: SAS, Matlab, R, Python, STATA, ArcGIS