

# Christian Tillich

## Data Scientist



Chicago, IL.



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## About me

Test

## Skills

(\*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

## Work Experience

- |              |              |                    |
|--------------|--------------|--------------------|
| Avant Credit | Data Science | Jun 2016 - Present |
|--------------|--------------|--------------------|
- Constructed key underwriting models for the portfolio.
  - Monitored models performance for degradation, suggested remedies and re-builds.
  - Developed a marketing segmentation model using unsupervised learning methods.
  - Built, documented, and maintained a shared automated reporting toolset for the team.
  - Built, documented, and maintained a tool for managing data preprocessing.
  - Contributed to a repository of shared functions and tests.

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|--------------|--------------------|---------------------|
| Avant Credit | Business Analytics | Sep 2015 - Jun 2016 |
|--------------|--------------------|---------------------|
- Designed critical long-term risk forecasting tool.
    - Linear regression to turn unintuitive underwriting score into sensible 12-month risk metric
    - Custom curve-fitting optimization to map 12-month risk to marginal risk curve over life of loan.
    - Tool accurately forecast losses during a period of high risk and low access to capital.
  - Performed investigative data analysis on several topics.
    - Optimal way to quantify debt to income.
    - Reverse engineering competitive products from credit report tradelines.

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|-----------------|----------------------|---------------------|
| Enova Financial | Research & Platforms | Dec 2014 - Sep 2015 |
|-----------------|----------------------|---------------------|
- Researched the efficacy of non-linear modeling strategies.
  - Developed unsupervised learning model to tag call center notes on a variety of topics.
  - Designed and maintained core analytics Data Mart.
  - Evaluated the efficacy of voice-to-text translation software for call center.

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|-----------------|-----------------------|---------------------|
| Enova Financial | UK Business Analytics | Jan 2014 - Dec 2015 |
|-----------------|-----------------------|---------------------|
- Designed profit-maximizing loan amount optimization tool. Raised average loan amounts by \$60 and expected net return by 7%.
  - Led all analytics efforts in major legal overhaul. Salvaged \$5 million in above worst-case scenarios.

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|-----------------|--------------------------|---------------------|
| Enova Financial | CA/AU Business Analytics | Aug 2010 - Jan 2014 |
|-----------------|--------------------------|---------------------|
- Identified and fixed key failures of underwriting engine.
  - Created LTV calculator used to optimize digital marketing allocations.
  - Informally managed team of 2-5 analysts working on different aspects of the underwriting engine.
  - Identified and shut down *ad hoc* fraud pockets on the two products.

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|-----------------|--------------------------|---------------------|
| Enova Financial | Fraud/Operations Analyst | jun 2008 - Aug 2010 |
|-----------------|--------------------------|---------------------|
- Developed critical reports that allowed us to open operations after massive fraud attack.
  - Wrote and implemented a number of consistency checks to catch operational/development errors and report back to stakeholders.

## Education

- |                              |               |             |
|------------------------------|---------------|-------------|
| DePaul University            | MS Statistics | 2012 - 2015 |
| GPA: 3.9                     |               |             |
| University of Illinois - UC  | BA Physics    | 2004 - 2008 |
| Minor in Philosophy GPA: 3.6 |               |             |

## Academic Research

Research Assistant   Granato Research Team   Sep 2006 - Sep 2007

- Prepared samples for experiments.
- Prepared preliminary findings for NSF grant proposals.

Research Assistant   CERI Research Team   May 2006 - Aug 2006

- Wrote Matlab scripts to determine theoretical surface depth from excessive loading.
- Wrote Unix shell-scripting to ETL raw GPS data into usable Matlab objects.
- Presented research to peers at 2 day conference in Oregon.