Christian Tillich

Data Science

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Statistics

Linear/Logistic/GLMNet

Tree Methods - RF & XGB

Clustering

Factor/Path Analysis/Markov

Bayesian Statistics

General Stats & Opt

Programming

R

Rmd & LaTeX

SAS/Python

SQL (Postgres & Hive)

Git

Excel (+ Solver + VBA)

MatLab/Mathematica/Other

The skill scale is from 0 (Used Once in College) to 6 (Expert). 3 implies ability to plan and complete average tasks within accurate and reasonable timelines.

Work Experience

| Avant Credit | Data Science | Jun 2016 - Present |

- Constructed key underwriting models for the portfolio.
- Monitored models performance for degradation, suggested remedies and rebuilds.
- 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.

| Avant Credit | Business Analytics | Sep 2015 - June 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.

| 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.

| 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.

| 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 and development errors and report back to stakeholders.

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.

Education

| DePaul University | 2012 - 2015 |

MS Statistics | GPA: 3.9/4.0

| University of Illinois - UC | 2004 - 2008 |

BS Physics, Minor in Philosophy | GPA: 3.6/4.0