

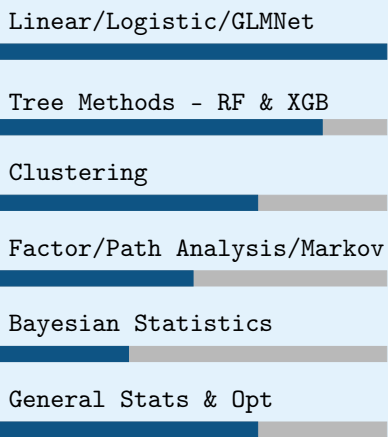


Christian Tillich

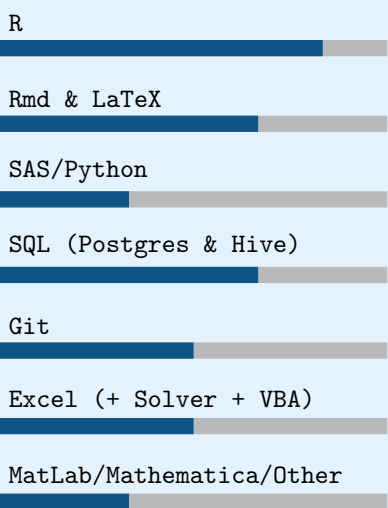
Data Science

✉ Chicago, Il.
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Statistics



Programming



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

Uptake Data Science: Assessments Mar 2019 - Present

- Constructed machine learning models to assist manufacturing clients in diagnosing and troubleshooting common failures on assets.
 - Anomaly detection models to capture errant behavior on stamping presses.
 - Rare-event prediction models to detect chock bearing and spindle failures for well-known steel manufacturer.
 - Unsupervised classification to clean operator labels in work-order data.
- Led successful engagement and conversion of clients in the Mining space.
- Assisted in engagement and conversion of clients in the Manufacturing space.
- Assisted in efforts to evaluate new technologies relevant to Data Science work.

Avant Credit Data Science Jun 2016 - Mar 2019

- Constructed machine learning models for the portfolio, including:
 - Core underwriting model for prime population.
 - Competitor underwriting models using alternative consumer credit sources
 - Unsupervised segmentation model for targeted marketing.
 - Modeling suite to enhance refinance target logic.
- Monitored models performance for degradation, suggested remedies and rebuilds.
- 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.
- Trained and informally managed new team members

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.

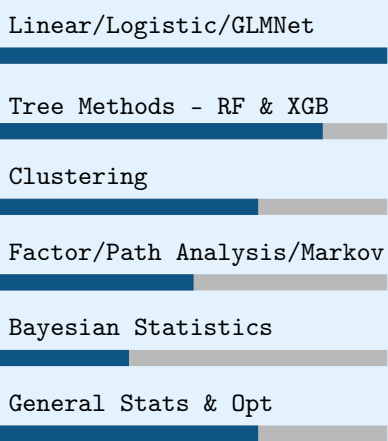


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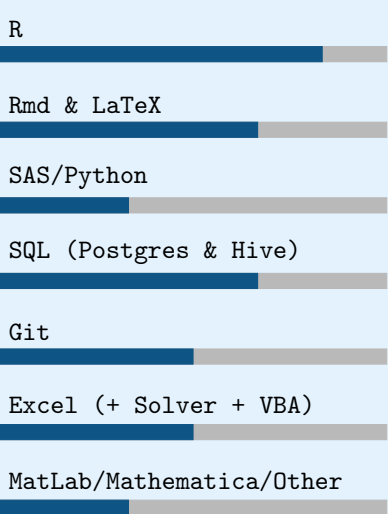
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Enova Financial Research & Platforms Dec 2014 - Sep 2015

- 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.

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.

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.


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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

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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