

Alexander Rudy

+1 303 715 8886
hello@alexrudy.net
alexrudy.net
github.com/alexrudy

Overview

- Strategy and execution focused, with experience from data warehouses through state of the art machine learning.
- Strong track record of delivering high-impact compliant machine learning models for a variety of business applications.
- Deep business domain knowledge of the consumer finance and credit industry applied across multiple startups.
- Experience building tree-based ensemble models, neural networks, regression models, hierarchical bayesian models.
- Developed and deployed extensively in Python, SQL, C and Rust. Experience with Go, JavaScript, Ruby, Fortran & R.

Experience

Head of Data Science

August 2019 – Present

Bitly – San Francisco, CA – Lead data science for the Bitly IQ startup within Bitly.

- Responsible for the roadmap, hiring, and cross-functional prioritization for the Data Science team at Bitly.
- Created NLP skip-gram models to provide semantic tagging for billions of crawled pages across consumer industries.
- Built a cloud-native machine learning pipeline for building models using TensorFlow on Bitly's click and web history.
- Trained and implemented state-of-the-art bot identification using a recursive neural network.
- Developed a natural language model to identify suspicious and malicious URLs on the Bitly platform.

Senior Data Scientist

March 2018 – August 2019

Even – Oakland, CA – Founding member of the data team.

- Developed a novel ML algorithm to apply active learning and hierarchical clustering to personal financial transaction data. The algorithm allows the Even app to budget for predictable expenses, powering 250,000 personal financial plans.
- Led the design and architecture of a new data warehouse to expose business data to Even employees. Built and evangelized the use of transformed data with business definitions, democratizing data analysis across the company.
- Wrote and lead an impact study white paper demonstrating the 45% improvement to employee retention associated with using the Even app in collaboration with Walmart's Benefits division.
- Bootstrapped and launched an underwriting model to identify working hours of employees using location data.
- Served as a mentor and technical leader for Data Scientists and Data Engineers on the data team.

Data Scientist

July 2017 – March 2018

LendUp Card Services – San Francisco, CA – became Mission Lane in 2018

- Built and deployed a performant, ECOA compliant underwriting model for applicants with bankruptcies which accounts for 80% of credit card approvals and drove significant business growth.
- Created a data-driven credit card net present value model for our portfolio and a business intelligence GUI which became the primary tool for product and credit strategy decisions.

National Science Foundation Research Fellow

September 2012 – July 2017

University of California, Santa Cruz, University of California Observatories, and Lawrence Livermore National Laboratory

- Developed operational and real time software for a research facility adaptive optics instrument at Lick Observatory.
- Demonstrated the use of a predictive Kalman filter to correct for wind errors on a 1kHz adaptive optics system.

Fulbright Research Fellow

September 2011 – June 2012

Foundation for Scholarly Exchange and National Central University Graduate Institute of Astronomy – Zhongli, Taiwan

Education

PhD, Astrophysics, University of California Santa Cruz, CA

July 2017

Advisor: Claire Max. Thesis Topics: Predictive Control for Adaptive Optics, Gas Dynamics of Nearby Galaxies

BA, *cum laude*, Physics, Pomona College, Claremont, CA

May 2011