

Andrea Dal Pozzolo, PhD

+41 79 5799135 • dalpozz@gmail.com • <http://dalpozz.github.io>
Address: Herdiweg 1, 2563 Ipsach, Switzerland
Nationality: Italian, Swiss work permit: C

SUMMARY

My passion is to turn data into insights and products. Many problems can be solved by asking the right questions and using data to answer them, but many data sources are still untapped. I like working out the questions with the experts and digging down the data to find those gems. My expertise is in applying statistical and Machine Learning techniques to build prediction models for diverse business cases. I'm currently leading a team of 6 data scientists/analysts.

ACHIEVEMENTS

Built and deployed multiple data products delivering consumer insights to senior management. Leading several projects on applied Machine Learning and advanced analytics. Deployed an advanced diagnostic tool for IQOS devices saving 30M USD in replacements. Promoted to Manager after 1 year and a half (PMI), Senior Consultant after 1 year (EY). Designed a Machine Learning solution providing a Bank savings for up to 2.6M CHF a year. Provided training on Machine Learning to EY consultants across Europe (> 100 participants).

WORK

EXPERIENCE

Roche, Basel, Switzerland

Senior Data Scientist

Since Nov 2021

- Development of Unified Forecasting Engine for sales and demand prediction

Credit Suisse, Zurich, Switzerland

VP - Senior Data Scientist

Aug 2021 – Oct 2021

- Development of entity resolution and ontology model for Single Client View

Philp Morris International, Neuchatel, Switzerland

Project Manager

Feb 2021 – Jun 2021

- Development supervision of an ML solution for automatic identification of defective devices.
- Project coordination and deployment in multiple markets

Manager Analytics and Report

Sep 2019 – Jan 2021

- Built a team of Data Scientist from scratch
- Become the "go-to person" for many analytical problems
- Supported multiple projects across the entire organisation in cross-functional teams
- Delivery of multiple insights to top management

Senior Enterprise Data Scientist

Jan 2018 – Aug 2019

- Best practise ambassador and coaching of young data scientist
- Identification of consumption patterns of Reduced Risk Products
- Detection and forecast of consumption trends
- Clustering of users with similar behaviour

Ernst & Young, Zurich, Switzerland

Senior Consultant | Quant & Analytics team

Apr 2016 – Dec 2017

- Nordea Bank: event triage of fraud alerts using Spark ML.
- UBS: detection of Money Laundering activities using Machine Learning techniques.
- Credit-Suisse: PnL calculation and analysis of fraudulent External Assets Managers.
- UBS: methodology and implementation audit of credit risk factor model for VaR and SVaR.
- Zurich Insurance Group: treasury fraud pattern identification using Machine Learning algorithms.

VASCO Data Security (Now OneSpan), Wemmel, Belgium

Decision Analytics Consultant

Jan 2016 – Mar 2016

- Implementation of Fraud Detection Systems based on Machine Learning algorithms.
- Development of a Link Analysis application supporting fraud investigations.

Machine Learning Group - ULB, Brussels, Belgium

Researcher

Jan 2012 – Dec 2015

- Development of Machine Learning algorithms for Fraud Detection in credit cards.
- Collaboration with the fraud detection team of Worldline S.A (Brussels, Belgium).
- Supervision and coaching of master students.

Directa Sim, Turin, Italy

Analyst

Aug 2009 – Jul 2011

- Supervision of VisualTrader development (online trading platform).
- Development of trading systems and market scanners.
- Customer support for the trading platform.

SOFT SKILLS	Team Lead, Coaching, Project Management, Data analysis, Statistical modelling		
IT SKILLS	Python, R, SQL, Git, Spark, Unix/Linux, L ^A T _E X, Tableau, Microsoft Office suite.		
ML LIBRARIES	Scikit-Learn, Spark ML/Mllib, H2O, TensorFlow, XGBoost, Mlr, Caret.		
EDUCATION	<p>Université Libre de Bruxelles, Brussels, Belgium</p> <p>Doctor of Philosophy (Ph.D.) in Computer Science Jan 2012 – Dec 2015</p> <ul style="list-style-type: none"> • Thesis: Adaptive Machine Learning for Credit Card Fraud Detection • Adviser: Prof. Gianluca Bontempi • Research areas: Machine Learning, Data Mining, Statistics and Fraud Detection. <p>Università di Bologna, Bologna, Italy</p> <p>Master of Science (M.S.) in Applied Statistics and Actuarial Science Sep 2009 – Dec 2011</p> <ul style="list-style-type: none"> • Thesis: Comparison of Data Mining Techniques for Insurance Claim Prediction • Final grade: 110/110 Summa Cum Laude <p>Bachelor of Science (B.S.) in Statistics for Finance and Insurance Sep 2006 – Jul 2009</p> <ul style="list-style-type: none"> • Second year at University of Glasgow (UK), Erasmus student • Final grade: 110/110 Summa Cum Laude 		
COLLABORATIONS	<p>Politecnico di Milano, Milan, Italy</p> <p>Visiting researcher at Dipartimento Elettronica e Informazione (DEI) Apr 2015 – Jun 2015</p> <ul style="list-style-type: none"> • Supervisors: Prof. Giacomo Boracchi <p>University of Notre Dame, Notre Dame, Indiana, USA</p> <p>Visiting researcher at Data Inference Analytics and Learning Lab (DIAL). May 2014 – Jun 2014</p> <ul style="list-style-type: none"> • Supervisors: Prof. Nitesh V Chawla 		
PUBLICATIONS	<p>Full list available on personal website, most relevant include:</p> <ul style="list-style-type: none"> • “Credit Card Fraud Detection: a Realistic Modeling and a Novel Learning Strategy”, 2017. • “SCARFF: a Scalable Framework for Streaming Credit Card Fraud Detection with Spark”, 2017. • “When is undersampling effective in unbalanced classification tasks?”, 2015. • “Calibrating Probability with Undersampling for Unbalanced Classification”, 2015. • “Learned lessons in credit card fraud detection from a practitioner perspective”, 2014. 		
LANGUAGES	Mother tongue: Italian	Fluent: English, French	Beginner: German, Spanish