Gabriel Bénédict

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Technical Expertise
Python, R, JAX, Tensorflow, Pytorch, Keras, Airflow, AX, LaTeX, Lisp, Java, SAS, Stata, VBA, C++, SQL, Stan, MATLAB

Dataiku, Salesforce, Nielsen, JMP, Office

Nationalities
Swiss, French, Brazilian

Sports
Ski-touring, bouldering, tennis, rugby

Literature
Absurdism, philosophy

Languages
Native in French

Fluent in English, German, Portuguese & Swiss German

Good knowledge of Hebrew, Dutch

Extracurricular
Robust Statistics lecturer at Yeshiva University

Statistical Consultant for *Lionbase*

Co-president of *Club de Lecture* HSG

Co-founder at *Mia*

Experience

Oct. 20 - Present — **University of Amsterdam** — AMSTERDAM, NL
PhD student in AI for personalization

JAX, Tensorflow, Pytorch, MLFlow, Docker

(i) Metrics-as-losses for deep learning and in particular for multilabel classification. (ii) Normative Diversity in News Recommendations via custom distribution-aware (Jensen Shanon) rank-aware metrics – best–paper runner-up. (iii) ProsAIc – Music similarity, music labelling, video-to-music. Intent-satisfaction modelling with behavioral data on video streaming platforms. (iv) Intent-satisfaction modelling – under review. (v) Diffusion for multilabel classification – experimenting.

Oct. 20 - Present — **RTL NL** — AMSTERDAM, NL
Artificial Intelligence Researcher

Tensorflow, Pytorch, AWS, GCP, Databricks, MLFlow, Docker, Argo, Pachyderm

(i) Co-founder @ProsAIc : a webapp for AI music recommendations for videos (Music similarity, music labelling, video-to-music tasks). We raised €415k over the first year internally and hired 6 employees. Potential second round of €800k in 2023. Learned Kubernetes and React for POC. Familiarised myself with Cloud Run to run parallel neural network inference at high scale on millions of songs and thousands of videos. (ii) Multilabel classification for personalized trailers / posters on Videoland (SVOD). (iii) Diversity in News Recommendations metrics. Upcoming evaluations on RTL-Nieuws. (iv) Intent-satisfaction modelling : conduct an online live survey on 3k users on Videoland (SVOD). Linked survey and behavioral data via ID matching. Modelled satisfaction based on the intent and behavioral data modelling. (v) Co-founder @data-academy – an internal project to incentivise RTL employees to be more data-driven : setup and planning of workshops, HR data onboarding process, data courses.

Oct. 19 - Oct.20 — **Bertelsmann** — HAMBURG, GE / AMSTERDAM, NL / LYON, FR
Data Scientist at Gruner & Jahr and Bedrock

AWS, GCP, Databricks, Airflow, Dataiku, Tensorflow, Pytorch, Keras, AX, MLFlow

Building a personalisation roadmap. Bayesian / Bandits testing (productioning with Airflow + AX.dev), reinforcement learning. Finetuning imageNets (CNNs, 3DCNNs) with custom heads and loss functions to create personalised stills and trailers (productioning with AWS + Databricks). Scoring of news articles by surveying 100 employees. Predicting article scoring by fine-tuning BERT on article texts (productioning with Airflow + GCP + Databricks). Causal Inference with Bayesian structural time series models to assess impact of recommendation system.

Aug. – Sep. 19 — **Cambridge University** — CAMBRIDGE, UK
Deep Learning Researcher

Tensorflow, cron

Research in self-supervised learning with autoencoders for genomics. Training of -omics datasets, including UK Biobank with 50k respondents and millions of variables (Single Nucleotide Polymorphism) on Cambridge supercomputers. Establishment of a new baseline for Genome Wide Association (GWAS) studies, and for tabular data in general, against typical xgboost models, thanks to a multi-task multi-view perspective.

Jul. – Sep. 18 — **Cytel** — BARCELONA, ES
Statistician

R, C++, Rcpp, Emacs

Research and R-package development for adaptive survival clinical trials : (i) mathematical derivation of the conditional power linked to non-parametric survival modelling with compounded outcomes, implementation of efficient matrix comparisons in C++ (ii) digitization and reconstruction of Kaplan Meier survival plots with the combination of hough transforms and an iterative survival estimation process.

14 – 18 — **Internships and Short Term Research**

Master Thesis Statistical Assistant at KUL — LEUVEN, BE
Structural Equation Modelling to model fear of terrorism

Category Management Intern at Danone — ZURICH, CH
Consumer and trade data analysis ; establishment of processes, eventual innovations and weekly briefings for the salesforce team of 7 employees roaming Switzerland and collecting data ; analysis and strategic decision making

Research Assistant at Institute of Political Science — ST GALLEN, CH
Research and written contribution to a quantitative paper on the democratic legitimacy of transgovernmental networks

Controlling and Finance Intern at Aeris Capital — ZURICH, CH
Backend software updates, monthly F&C Report updates, data cleaning, proposal and implementation of an automatization of monthly updates

Internal Audit at Adecco Group — ZURICH, CH
Working papers preparation, interviews, business processes and procedures analysis, audit reports composition

Risk Management at Spinnaker Capital — SAO PAULO, BR
Risk exposure calculation, history risk reports management and creation

Education

2018 – 2019 — **KU Leuven &** — LEUVEN, BE
Columbia University — NEW YORK, US
Master in Statistics (1st & 2nd year respectively)

supervised by Prof. Gelman, Prof. Verdonck and Dr. Mukherjee

Thesis Compilation of an R-package for the digitization and reconstruction of data underlying Kaplan Meier Survival Curves. Includes a showcase meta-analysis and a formulation for infinite mixture Weibull models with Dirichlet Process priors.

2012 – 2016 — **Universität St Gallen [HSG]** — ST GALLEN, CH
Bachelor in Economics

supervised by Prof. Cozzi

Thesis Counterfactual regression analysis to measure the efficiency of debt relief (WB and IMF) on over-indebted countries.