# Gabriel Bénédict

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# Research Interests

A mix of theoretical and applied AI research. The main themes are optimization for neural networks (surrogate metrics as losses), (normative) diversity metrics for news recommendation, intent-satisfaction modelling, video-to-music AI and now diffusion. [Google Scholar ]

#### Date of birth

31.10.1993

### Citizenship

Swiss, French, Brazilian

# Languages

Native in French

Fluent in English, German, Portuguese & Swiss German

> Good knowledge of Dutch, Hebrew

#### Workshop co-organization

Generative Information Retrieval @SIGIR 23

Generative Information Retrieval @SIGIR 24

#### Reviewing

NeurIPS 23, AABI 23. AISTATS 21 & 22, MLRC 22

#### Awards

Best Paper Runner up @Recsys22, MVP 22 @IRLab

#### Talks

GenIR @ZetaAlpha [recording]

GenIR & RecFusion @Naver/AMLab/ ADS/FoMo

#### Sports

Ski-touring, bouldering, tennis, rugby

#### Extracurricular

Robust Statistics lecturer at Yeshiva University NY Statistical Consultant for LionbaseCo-president of Club de Lecture HSG Co-founder at Mia

#### Dec. 23. – Present Amazon

Experience

Machine Learning Scientist, GenAI

Madrid, ES

Research and applied work on Generative AI for Amazon devices. Conversational recommendation, custom losses for LLMs, LLMs for touch screens.

Oct. 20 - Nov.23 RTL NL Amsterdam, NL

Cambridge, UK

Artificial Intelligence Researcher

(i) Started and co-lead MusicFlow: a webapp for AI music recommendations for videos (music similarity, music labelling, video-to-music tasks). Hired 6 FTEs. (ii) Implementation @Videoland (SVOD) and @RTL-Nieuws: still-picking, survey design and diversity in news recommendation metrics (iii) We started Data-Academy – data-driven decisions across RTL.

Oct. 19 - Oct.20 Bertelsmann Hamburg, GE / Amsterdam, NL / Lyon, FR Data Scientist at Gruner & Jahr and Bedrock

(i) Personalisation roadmap. (ii) News articles quality survey and scoring in production. (iii) Causal Inference with Bayesian structural time series models to assess impact of recommendation system.

Aug. – Sep. 19 Cambridge University

Deep Learning Researcher

Self-supervised learning with autoencoders for genomics on UK BioBank

Barcelona, ES Jul. – Sep. 18 Cytel Statistician

Research and R-package development for adaptive non-parametric survival clinical trials

14 - 18Internships 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 Research Assistant at Institute of Political Science ST GALLEN, CH Controlling and Finance Intern at Aeris Capital Zurich, CH

> Internal Audit at Adecco Group Zurich, CH Risk Management at Spinnaker Capital Sao Paulo, BR

#### Education

Oct. 20 - Nov.23 University of Amsterdam Amsterdam, NL

ST GALLEN, CH

PhD candidate in AI for personalization

2018 - 2019KU Leuven & LEUVEN, BE Columbia University New York, US

Master in Statistics (1st & 2nd year respectively)

Magna Cum Laude

Thesis Digitizing and Reconstructing Kaplan Meier Survival Data – The survThief package

2012 - 2016Universität St Gallen [HSG]

> $Bachelor\ in\ Economics$ Thesis Debt Relief Efficiency

# **Publications**

AI for neuroscience paper [Anonymised]. @NeurIPS (under review) 2024

2023 RecFusion: A Binomial Diffusion Process for 1D Data for Recommendation. Gabriel Bénédict, Olivier Jeunen, Samuele Papa, Samarth Bhargav, Daan Odijk, Maarten de Rijke. @GenRec-CIKM 🗷

2022sigmoidF1: A Smooth F1 Score Surrogate Loss for Multilabel Classification. Gabriel Bénédict, Hendrick Vincent Koops, Daan Odijk, Maarten de Rijke. @TMLR 🗷

Intent-Satisfaction Modeling: From Music to Video Streaming. Gabriel 2022 Bénédict, Daan Odijk, Maarten de Rijke. @TORS

co-first-author 2022RADio-Rank-Aware Divergence Metrics to Measure Normative Diversity in News Recommendations Sanne Vrijenhoek\*, Gabriel Bénédict\*, Mateo Gutierrez Granada, Daan Odijk, Maarten de Rijke. @Recsys 🗷

> 2021 The University of Amsterdam at the TREC 2021 Fair Ranking Track. Ali Vardasbi, Gabriel Bénédict, Shashank Gupta, Maria Heuss, Pooya Khandel, Ming Li, Fatemeh Sarvi. @TREC