Lennert Jansen

GitHub | LinkedIn | lennertjansen.com | lennertjansen95@gmail.com | +31633331025

Skills & Languages

- **Programming Languages:** Python, R, SQL, MATLAB, C/C++
- **Frameworks:** CUDA, Django, FastAPI, JAX, Matplotlib, NumPy OpenAI API, Pandas, PyTorch, Scikit-learn
- **Technologies:** Azure, AWS, Docker, DBeaver, Git, Grafana, JIRA, LaTeX, Linux, Swagger
- **Skills:** AI, Econometrics, Data Science, Deep Learning, Machine Learning, Natural Language Processing
- **Languages:** Dutch, English, and Papiamentu (Native), Spanish (Limited working proficiency), German (Elementary)

Experience

Artificial Intelligence Engineer Feb 2023 - Feb 2024
Attendi Technology Amsterdam, the Netherlands

- Developed Dutch speech-to-text models for medical reporting, with 20,000+ monthly users.
- Led implementation of the now standard built-in **Transformer-based** automatic punctuation module.
- Responsible for increasing transcription accuracy of the ASR-solution by approximately 2% through regular training, testing, and deployment of the underlying speech-to-text models.
- Spearheaded development and risk assessment of **LLM-based** writing assistant application using OpenAI API.
- **Tools:** Azure, Azure Data Studio, BitBucket, DBeaver, Docker, Grafana, JIRA, Linux, Notion, OpenAI Azure API, PostgreSQL, Postman, Python, PyTorch, Swagger.

Applied Science Intern May 2022 - Sep 2022
Amazon Berlin, Germany

- Developed Amazon Marketplace price and demand time-series simulator for cross-price elasticity estimation using hierarchical Bayesian modeling and causal inference.
- **Tools:** Apache MXNet, AWS (SageMaker, EC2, S3), Clay, JAX, Linux, Python.

Research Assistant Jan 2021 - Dec 2021
University of Amsterdam, Dialogue Modelling Group Amsterdam, the Netherlands

- Trained and evaluated computationally inexpensive end-to-end age-adaptive dialogue models using PPLM, GPT-2, DialoGPT, and BERT. Link to blog and demo.
- **Tools:** AWS (EC2, SageMaker, S3), CUDA, Linux, Python, PyTorch, SURFsara Lisa cluster.

Student Data Scientist Jan 2020 - Aug 2020
Adyen Amsterdam, the Netherlands

- Developed Forex benchmarking tool that optimized pricing strategies using Oanda API.
- **Tools:** Oanda API, Python, PyTorch.

Graduate Researcher April 2019 - Sep 2019
IBM Amsterdam, the Netherlands

- Researched methods for mitigation of unfair biases in ML-guided criminal risk assessment tools.
- **Tools:** Python, PyTorch, and IBM's fair ML framework, AIF360.

Education

MSc. Artificial Intelligence (cum laude), University of Amsterdam 2019 - 2021
GPA: 8.1/10.0 Amsterdam, the Netherlands

- Thesis: "A Plug-and-Play Approach to Age-Adaptive Dialogue Generation" (grade: 8.5/10.0)
- **Remarks:** Published three academic papers, two of which first-authored. Two master degrees overlapped.

MSc. Econometrics, Erasmus University Rotterdam 2018 - 2020
GPA: 8.2/10.0 Rotterdam, the Netherlands

- Thesis: "On Algorithmic Fairness and Bias Mitigation in Recidivism Prediction" (grade: 8.8/10.0)

BSc. Econometrics & Operations Research, University of Amsterdam 2014 - 2018
GPA: 7.3/10.0 - Thesis grade: 8.5/10.0 Amsterdam, the Netherlands

VWO (A levels), Kolegio Alejandro Paula 2007 - 2013
GPA: 8/10 Willemstad, Curaçao

Selected Publications

Jansen, Lennert, Štepan Lars Laichter, et al. (2022). "Controllable Text Generation for All Ages: A Plug-and-Play Approach to Age-Adapted Dialogue Responses". In: *The The 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Generation, Evaluation & Metrics Workshop. URL: https://dmg-illc.github.io/ai-age-adaptation/papers/GEM_paper.pdf.

Jansen, Lennert, Arabella Sinclair, et al. (2021). "Detecting Age-Related Linguistic Patterns in Dialogue: Toward Adaptive Conversational Systems". In: *Proceedings of the Eighth Italian Conference on Computational Linguistics, CLIC-it 2021, Milan, Italy, 26-28 January 2022*. URL: http://ceur-ws.org/Vol-3033/paper47.pdf.

Groot, Margot J. van der et al. (2021). "Exploring the potential of adapting conversational systems to different age groups: A pilot study". In: *Proceedings of the Fifth International Workshop on Chatbot Research, CONVERSATIONS 2021, Online virtual event, 23-24 November 2021*. URL: https://tinyurl.com/mr3tv2xa.

Projects

Neena (WIP) Link to GitHub repo

Working on an application for training AI agents using visual interfaces.

Robust Interpretability of Self-Explaining Neural Networks Project Link to GitHub repo

Project for MSc. AI elective, Fair AI, about self-explaining neural networks for enhanced interpretability, assessed through explicitness, faithfulness, and stability evaluated on the COMPAS dataset; accompanying paper and result-generating Jupyter Notebook included in the GitHub repo.

Kurashi Collective Website Link to website

Built and currently maintaining website for Kurashi Collective, a clothing brand, DJ-group, and event organizing community founded by my little brother, mutual friends, and me.

Algorithmic Trading Hobby Project Link to GitHub repo

Developed algorithmic trading models (LSTMs and Hidden Markov Models) to deal on the Forex market.