Salim Salmi

SUMMARY

Hello, my name is Salim Salmi, a computer scientist based in Amsterdam who focuses on the fascinating fields of natural language processing and deep learning. My work focuses on exploring the possibilities of AI to understand and work with human language. I am dedicated to continuous learning and to contributing to the growing field of artificial intelligence, while striving to make a positive impact through technology.

Work Experience

Researcher at 113 Zelfmoordpreventie

Oct 2023 - Present

At 113 I worked on researching and developing machine learning methods to facilitate suicide prevention research. For this purpose, I used machine learning models for audio transcription (Whisper) and language generation (Llama), to create an automated pipeline for interview transcription, labeling, summarization, and analysis.

PhD Candidate at Centrum Wiskunde & Informatica

Nov 2019 - Sep 2023

At CWI I worked on several natural language processing applications on suicide helpline chat data in cooperation with 113 Zelfmoordpreventie. I used shallow as well as deep learning methods to tackle this complex dataset for unsupervised and supervised tasks. I developed methods that provided information to the helpline at the macro level through explainable AI, as well as real-time tools to assist the helpline in their day-to-day tasks. Thesis defense date: 4 December 2024

Software developer at Vialis

Sep 2015 - Feb 2016

At Vialis I worked with the Vialis development team on a traffic management application. I assisted the team with implementing new features as well as resolving current issues. Furthermore, I developed an extendable end-to-end testing suite, including tests for several important use-cases within the environment.

EDUCATION

2016 - 2019	MSc Computer Science	Delft University of Technology
2010 - 2016	BSc Computer Science	Delft University of Technology

SKILLS

As a Data Scientist specializing in Natural Language Processing, I have experience with a multitude of programming languages, libraries, and tools, including: Python, Pytorch, Transformers, SpaCy, Scikit.

From my background in Computer Science I also have a good understanding of software development with skills including: Databases & SQL, Web technologies, Agile & Scrum, Docker, Cloud Computing.

I am a native **Dutch** speaker and fluent in **English**.

PUBLICATIONS

- Salmi, Salmi, Saskia Mérelle, Renske Gilissen, and Willem-Paul Brinkman (2021). "Content-based recommender support system for counselors in a suicide prevention chat helpline: Design and evaluation study". In: *Journal of medical internet research* 23.1, e21690.
- Salmi, Salim, Saskia Mérelle, Renske Gilissen, Rob van der Mei, et al. (2022). "Detecting changes in help seeker conversations on a suicide prevention helpline during the COVID- 19 pandemic: in-depth analysis using encoder representations from transformers". In: *BMC public health* 22.1, p. 530.
- Salmi, Salim, Rob van der Mei, et al. (2024). "Topic modeling for conversations for mental health helplines with utterance embedding". In: *Telematics and Informatics Reports*, p. 100126.
- Salmi, Salim, Saskia Mérelle, Renske Gilissen, Rob van der Mei, et al. (2024). "The Most Effective Interventions for Classification Model Development to Predict Chat Outcomes Based on the Conversation Content in Online Suicide Prevention Chats: Machine Learning Approach". In: *JMIR Mental Health* 11, e57362.

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