

# Sam Titarsolej

I am an ambitious, curious and proactive AI-enthusiast, who loves to experiment and tinker with innovative technologies. In my experience as an AI researcher I found a way to express this passion for creating innovation. Furthermore, I find it very satisfying to effectively communicate and share my work to and with others of all kinds of backgrounds. Lastly, I am very creative and like to reflect this in my work.

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## RELEVANT EMPLOYMENT

### Vrije Universiteit (VU), Amsterdam – *Research Assistant*

Jan 2020 - Jan 2023

At the VU I work for the Computational Linguistics & Text Mining Lab under supervision of Dr. Piek Vossen and Marten Postma PhD. My main activities involved the design and development of an annotation tool used to annotate FrameNet frames. These annotations are used to study the relationship between variation in references and framing. I also developed metrics to quantify the quality of these annotations. This work led to two publications [1, 3]. Furthermore, I worked on the GLOBALISE project in a partnership with the Huygens Institute. For this project I worked with historians to develop tools for the digitalization and contextualization of documents and reports produced during early periods of colonialism and globalism of the Dutch East India Company. These tools are used by historians to accelerate their research.

### School voor Persoonlijk Onderwijs (SvPO), Amsterdam – *Python Data Application Developer*

Jun 2019 - Jan 2020

Throughout a school year, SvPO collects data about their teachers using surveys filled out by SvPO students. SvPO required an application to process the data collected through these surveys, to help them prepare for annual appraisal meetings. I designed and developed this full stack application.

### FormsVision, Abcoude – *.NET Software Engineer*

Jun 2015 - Jan 2020

FormsVision develops software that is used in clinical trials at major cancer institutes around the world. To help institutes and hospitals find clinical trials at other institutes, I designed and developed a clinical trial search engine that houses data on clinical trials for all major institutes in my role as .NET software engineer..

### MOTDgd, Amsterdam – *Java Developer*

Dec 2014 - Jan 2016

For MOTDgd I worked on a plugin for an online video game (Minecraft) that allows server owners to monetise their video game server through advertising. The plugin enabled communication between MOTDgd's servers and the video game servers.

## SKILLS

### Programming

Python  
PyTorch  
TensorFlow  
scikit-learn  
C# & .NET  
Javascript  
HTML & CSS  
Java  
PHP  
SQL

### Software

Unity  
Adobe Illustrator  
Adobe Photoshop  
Google Cloud Platform  
Amazon Web Services  
Linux  
Docker

### Social and Organizational

Communicative  
Initiative taker  
Decisive  
Analytical  
Innovative

## LANGUAGES

Dutch (Native)  
English

## INTERNSHIPS

### **Osaka University (OU), Amsterdam – Research Internship**

Jan 2023 - Jun 2023

The Institute of Datability Science (IDS) works on varying types of research projects related to artificial intelligence, ranging from artwork processing to explainable AI. At IDS, I worked on a novel representation learning method for object discovery in computer vision, using complex-valued neural networks and self-supervised learning.

### **MMIT International – Artificial Intelligence Researcher**

Jan 2021 - Feb 2021

MMIT International has data of millions of Asian companies and the addresses associated with these companies. Most of the addresses in their dataset are not as well formulated as most western addresses. Together with a team of three other AI students, I researched the performance of deep learning techniques on parsing Asian addresses.

### **JOGO.ai – Artificial Intelligence Researcher**

Jun 2020 - Sep 2020

At JOGO.ai I researched the possibilities of using deep learning techniques to detect and review football exercises. These techniques are used in their app that helps football scouts scout young talent, and players to improve their technical football performance through exercises.

## EDUCATION

### **University of Amsterdam – MSc Artificial Intelligence**

Sep 2021 - Present

Courses include: Machine Learning, Deep Learning, Computer Vision and Natural Language Processing.

### **University of Amsterdam – BSc Artificial Intelligence**

Sep 2018 - Aug 2021

Courses include: Calculus, Linear Algebra, Probability and Statistics, Machine Learning, Cognitive Modeling & Computer Vision. Thesis topic: Deployment of large scale end-to-end object detection models on edge devices using knowledge distillation.

### **Lumion – VWO**

Sep 2014 - Aug 2018

Graduated in Mathematics, Physics, Chemistry, Biology, Dutch, English, German and Technology. I conducted a final school research project on convolutional neural networks in reinforcement learning for video games.

## HOBBIES

Drawing  
Reading  
Playing sports  
Watching sports  
Playing guitar

**PUBLICATIONS**

**[1] Introducing Frege to Fillmore: A FrameNet Dataset that Captures both Sense and Reference** – Proceedings of the 13th Language Resources and Evaluation Conference, Marseille, June 2022

Levi Remijnse, Piek Vossen, Antske Fokkens, Sam Titarsolej

**[2] Reproducibility Study - SCOUTER: Slot Attention-based Classifier for Explainable Image Recognition** – ML Reproducibility Challenge 2021

(<https://openreview.net/forum?id=HZNIq3fmhRF>)

Maarten Burger, Kaya ter Burg, Sam Titarsolej, Selina Jasmin Khan

**[3] Combining Conceptual and Referential Annotation to Study Variation in Framing** – *Proceedings of International FrameNet Workshop 2020: Towards a Global Multilingual FrameNet*

(<https://www.aclweb.org/anthology/2020.framenet-1.5/>)

Marten Postma, Levi Remijnse, Filip Ilievski, Antske Fokkens, Sam Titarsolej, Piek Vossen