

# Sotaro Takeshita

PHD CANDIDATE

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### **Education**

University of Mannheim Mannheim, Germany

Ph.D. Student in Natural Language Processing

Sep. 2022 - Present

- Text summarization for scholarly documents.
- Supervisor: Prof. Dr. Simone Paolo Ponzetto

#### The National University of Electro-Communication

Tokyo, Japan

Apr. 2018 - Mar. 2020

M.S. IN COMPUTER SCIENCE

• Thesis: Multimodal models for commonsense reasoning.

• Supervisor: Prof. Dr. Yasuhiro Minami

The National University of Electro-Communication

Tokyo, Japan

B.S. IN COMPUTER SCIENCE

Apr. 2013 - Mar. 2018

- Thesis: Unsupervised text summarization with reinforcement learning.
- Supervisor: Prof. Dr. Yasuhiro Minami

### Publication \_\_\_\_

#### **JOURNAL**

#### Cross-lingual extreme summarization of scholarly documents

SOTARO TAKESHITA, TOMMASO GREEN, NIKLAS FRIEDRICH, KAI ECKERT AND SIMONE PAOLO PONZETTO

2023

International Journal on Digital Libraries (IJDL)

#### CONFERENCE

#### IRSum: One Model to Rule Summarization and Retrieval

SOTARO TAKESHITA, SIMONE PAOLO PONZETTO, KAI ECKERT

2025

2025

2024

To appear at GEM Workshop at ACL 2025

#### GenGO Ultra: an LLM-powered ACL Paper Explorer

SOTARO TAKESHITA, SIMONE PAOLO PONZETTO, KAI ECKERT

To appear at The 63rd Annual Meeting of the Association for Computational Linguistics, System Demonstrations

The 13th Joint Conference on Lexical and Computational Semantics colocated at NAACL 2024, (Best Long Paper)

#### **GenGO: ACL Paper Explorer with Semantic Features**

Bangkok, Thailand

SOTARO TAKESHITA, SIMONE PAOLO PONZETTO, KAI ECKERT

2024

The 62nd Annual Meeting of the Association for Computational Linguistics, System Demonstrations

#### **ROUGE-K: Do Your Summaries Have Keywords?**

Mexico City, Mexico

Sotaro Takeshita, Simone Paolo Ponzetto, Kai Eckert

Mexico City, Mexico

#### ACLSum: A New Dataset for Aspect-based Summarization of Scientific Publications

rexico city, Mexico

SOTARO TAKESHITA, TOMMASO GREEN, INES REINIG, KAI ECKERT AND SIMONE PAOLO PONZETTO

2024

In Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL)

## ZusammenQA: Data Augmentation with Specialized Models for Cross-lingual Open-retrieval Question Answering System

Seattle, Washington + Online

Chia-Chien Hung, Tommaso Green, Robert Litschko, Tornike Tsereteli, <u>Sotaro Takeshita</u>, Marco Bombieri, Goran

2022

Workshop on Multilingual Information Access (MIA) at NAACL

#### X-SCITLDR: Cross-Lingual Extreme Summarization of Scholarly Documents

Cologne, Germany and Online

SOTARO TAKESHITA, TOMMASO GREEN, NIKLAS FRIEDRICH, KAI ECKERT AND SIMONE PAOLO PONZETTO ACM/IEEE Joint Conference on Digital Libraries (JCDL)

2022

OCTOBER 20, 2025

GLAVAŠ, SIMONE PAOLO PONZETTO

## Randomly Removing 50% of Dimensions in Text Embeddings has Minimal Impact on Retrieval and Classification Tasks

Suzhou, China

SOTARO TAKESHITA, YURINA TAKESHITA, DANIEL RUFFINELLI, SIMONE PAOLO PONZETTO

To appear in Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing (oral, EMNLP)

2025

## **Experience**

Amazon Luxembourg

APPLIED SCIENTIST, INTERNSHIP

Nov. 2025 -

**VADIS (VAriable Detection, Interlinking and Summarization)** 

Germany

RESEARCHER

• A project funded by German Research Foundation (DFG)

2022 - Present

• Development of a summarization system for social science research articles.

Build It Inc.

Tokyo, Japan

Data Analyst & ML Engineer 2015 - 2022

· Analysis of user behaviours using statistical and machine learning tools

• Development of recommendation SaaS

The University of Campinas, Faculty of Electrical and Computer Engineering

Campinas, Brazil

Nov. 2018

Sep. 2018

Aug. 2017

RESEARCH INTERNSHIP

• Developed Neural Network-based Computer Vision system for self-driving wheelchairs.

· Advisor: Prof. Dr. Eric Rohmer

NTT Media Intelligence Lab

Kanagawa, Japan

Research Internship

• Development of an NLP system to automatically generate funny stories in Japanese.

· Advisor: Dr. Ryuichiro Higashinaka

Recruit Holdings Tokyo, Japan

DATA SCIENCE INTERNSHIP

Development of an automatic scoring system for essays.

· Prized with a best intern award

Sección de Estudios de Posgrado e Investigación de ESIME Culhuacan, Instituto Politecnico Nacional

Mexico City, Mexico

RESEARCH INTERNSHIP Feb. 2016 - Apr. 2016

• Analysis on models of automatic face recognition models.

· Advisor: Prof. Dr. Mariko Nakano Miyatake

## **Projects**

**GenGO:** ACL Paper Explorer with Semantic Features, https://gengo.sotaro.io

 $\textbf{GenGO-Chat: LLM-powered NLP paper exploration system.}, \\ \texttt{https://gengo-chat.sotaro.io/}$ 

#### **Talks**

Scholarly Document Processing: Language Technologies to Help Scientist, Invited Talk
 Overview of Tasks and Challenges in Automatic Text Summarization, Invited Talk

NEC, Germany

OCTOBER 20, 2025