Yingqiang Gao

NLP Researcher and Engineer

Homepage

★ Google Scholar

GitHub

yingqiang.gao@cl.uzh.ch

ABOUT ME

I am a computer scientist and an IT engineer with 8 years of experience in Natural Language Processing, Machine Learning and Human-Computer Interaction, with a focus on Applications of LLMs and Human-in-the-Loop engineering. I authored multiple peer-reviewed publications in top-tier AI venues (ACL, EMNLP, EACL, COLING). I am a lecturer and a project leader at University of Zurich. I am also an active reviewer of ACL ARR. I proficiently speak three languages (C1-C2): Chinese, German and English. I write poems in Chinese when I'm not working.

WORK EXPERIENCE

UNIVERSITY OF ZURICH | NLP ENGINEER

October 2024 - Current | Zurich, Switzerland

- → Linguistic Research Infrastructure (LiRI), University of Zurich
- → Projects involved: Very large Corpus linguistics (SwissDox/LCP), Al Moderator for Political Debates, Dialect Detection for Cyber Security, etc.

UNIVERSITY OF ZURICH | POSTDOC RESEARCHER

April 2024 - May 2025 | Zurich, Switzerland

- → Department of Computational Linguistics
- → Research topics: Multimodal Audio Description Generation, Neural Machine Translation, Automatic Text Simplification, Information Accessibility, Personalized LLM for Accessibility with RLHF.

SELECTED PROJECTS

$\textbf{SWISSADT-AUDIO DESCRIPTION TRANSLATION} \hspace{0.2cm} | \hspace{0.1cm} \textbf{PYTHON, OPENAI, STREAMLIT} \\$

2024 University of Zurich | https://pub.cl.uzh.ch/demo/swiss-adt/

As part of the IICT Flagship, my Postdoc project that develops a multimodal multilingual audio description translation system for Swiss languages (German, French, and Italian). SwissADT translates a given audio description into a desired Swiss language by taking both textual and visual inputs.

SwissADT is the first application-oriented audio description translation system that aims to help the multilingual blind persons and persons with visual impairments in Switzerland better enjoy streaming media content.

ENDOC - SMART LITERATURE DISCOVERY | REACT, FLASK, GRAPHQL, MONGODB

 $\textbf{2020-2024} \; \textbf{ETH} \; \textbf{Zurich} \; | \; \texttt{https://endoc.ethz.ch/}$

My PhD project that develops a modularized literature discovery platform with claim generation and fact verification for scientific documents. ENDOC can jointly retrieve relevant scientific documents, extract highlights, generate citations and claims, and retrieve the most relevant content.

ENDOC is a free service to thousands of bachelor and master students studied at Swiss universities, including ETH Zurich, University of Zurich, and EPFL.

NEUROROBOTICS ROBOT DESIGNER | PYTHON, BLENDER

2018 Technical University of Munich | https://github.com/HBPNeurorobotics/BlenderRobotDesigner
My Master's project, a Blender plugin to design simulation models of robots, biomimetic
robots and musculoskeletal models faster and easier with a graphical user interface.
Models can be exported in SDFormat and .osim format and are compatible with
Gazebo and OpenSim.

This project was part of the Human Brain Project of the European Union, and was implemented at Department of Informatics at Technical University of Munich.

SKILLS

RESEARCH

Large Language Models
Information Retrieval
Human-Computer Interaction
Language Accessibility
Scientific Argument Mining
Automatic Document Analysis
Unsupervised Text Alignment
Neural Machine Translation

PROGRAMMING

Languages

Python • Javascript • C/C++

Toolkits

Git • Heroku • LATEX • Docker

ibraries

transformers • sklearn • pytorch numpy • nltk • matplotlib • scipy

Full-stack Development

React • Node.js • MongoDB SQLite • Flask • Streamlit

TEACHING

Master Seminar at UZH Retrieval-Augmented Generation Master Lecture at UZH Digital Transformation Challenges

EDUCATION

PH.D IN COMPUTER SCIENCE

ETH ZURICH

Aug 2020 - May 2024 | Zurich, Switzerland Institute of Neuroinformatics

M.SC IN COMPUTER SCIENCE

TECHNICAL UNIVERSITY OF MUNICH Oct 2017 - April 2020 | Munich, Germany Department of Informatics

B.ENG IN ELEC. ENGINEERING

SHANGHAI TONGJI UNIVERSITY
Sept 2013 - Aug 2017 | Shanghai, China
Sino-German School of Engineering

MEMBERSHIP

ETH AI CENTER

ASSOCIATED RESEARCHER

ZURICH CENTER FOR LINGUISTICS

ASSOCIATED RESEARCHER