

# Gabor Hollbeck

ghollbeck@ethz.ch +49 173 2328586 gaborhollbeck.com

Gabor is interested in computational social science, AI4Democracy applications and AI safety research.

## Education

<b>M.Sc. Physics</b> , ETH Zürich   Focus: SST Phase transitions, Statistical physics & Complex system dynamics	Sept 2022 – Present
<b>B.Sc. Physics</b> , Universität Duisburg-Essen, GPA: 1.2/1.0, ranked first in cohort	Sept 2019 – Sept 2022

## Experience

<b>Research Pillar Coordinator</b> , Comparative Global Humanities Initiative @MIT with Prof. Wiebke Denecke and Prof. Otto Scharmer	Jan 2025 – Present
• Research on two projects: AI4Democracy & Duolingo for conflict resolution	
<b>Student Researcher</b> , Computational Social Science Group, Prof. Dirk Helbing	Feb 2024 – April 2025
• Complex system optimization via genetic algorithms	
<b>Student Assistant</b> , Institute for Machine Learning @ETH Zürich	Nov 2023 – Apr 2024
<b>Student Researcher</b> , Rahman-spectroscopy on graphen, Prof. Marika Schleberger	Sept 2020 – Mar 2021

## Publications

<b>Cannot or Should Not? Automatic Analysis of Refusal Composition in IFT/RLHF Datasets and Refusal Behavior of Black-Box LLMs</b> , NeurIPS (2024)   used by Nvidia Research now to audit LLMs	Dec 2024
<b>Congestions and Spectral Transitions in Time-Lagged Correlations of Motorway Traffic</b> . Physica A: Statistical Mechanics and Its Applications, vol. 649, 2024	2024

## Coding Projects & Initiatives

<b>Founder, Open Democracy</b> – Open Source Non-profit for AI native Civic Tech tools.	May 2024 – Present
• Recruiting and leading a team of 30+ people. Research supervisor at <u>Agentic Systems Lab</u> at ETH Zurich.	
• Rolling out to 15 countries	
<b>Diplomatica.ai</b> – Duolingo for Conflict resolution, Emotional Intelligence, AI Conversation Simulator that gives feedback on communications skills	2024 – Present
<b>Co-Founder, The ETH Zürich Alt Protein Project</b>	Nov 2023 – Present
• Think tank and part of Alt Protein Projects, funded by the GFI (Good Food Institute), fostering the transformation of the way we produce food sustainably. Recruiting and leading a team of 10+ people.	
<b>Awardwinning Youtube Content Creator</b> , <u>Polylog</u> (YT Channel on theoretical CS, 0.5-5M views/vid)	2024 – Present

## Skills & Interests

**Languages:** German and Hungarian (native speaker), English (C2), French (B1)

**Software/coding:** Python (5+y), Julia (1 semester), React (1y), MATLAB (1 semester), Mathematica (2y), Adobe

**Interests:** Social Entrepreneurship, AI4Good, Complex System Dynamics, Climate Change, Mindfulness

## Awards and Scholarships

Winner of Politechathon Berlin 2024 | 1st Place, National Photography Competition of Deutsche Stiftung Denkmalschutz (3000+ participants) | 1st Place in 3Blue1Brown Competition "Summer of Math exposition" | Scholar of the federal merit-based "Deutschland Stipendium"