

# Gabor Hollbeck

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

## Education

<b>Research Collaboration</b> , Stanford University	March 2025 – Aug. 2025
• Multiagent Equilibria in Game Theory simulations with Dr. Tobin South and Prof. Alex Pentland, No official affiliation due to recent administrative visa issues	
<b>M.Sc. Physics</b> , ETH Zürich	Sept 2022 – Present
• Focusing on ML, Complex System Dynamics and Computational Social Science	
<b>Visiting Undergraduate Student</b> , ETH Zürich	Sept 2021 – Feb 2022
<b>B.Sc. Physics</b> , Universität Duisburg-Essen	Sept 2019 – Sept 2022
• GPA: 1.2/1.0, ranked first in cohort	

## Experience

<b>AI in Science Lead</b> , Agentic Systems Lab @ETH Zürich	Sept 2025 – Present
• Leading AI projects for advancing scientific discovery and auditing with agentic systems: <a href="https://scienceos.co">scienceos.co</a> and <a href="https://rigorous.review">rigorous.review</a>	
<b>Research Pillar Coordinator</b> , Comparative Global Humanities Initiative @MIT with Prof. Wiebke Denecke and Prof. Otto Scharmer	Jan 2025 – Present
• Research on two of my projects: AI4Democracy & Duolingo for conflict resolution	
<b>Student Researcher</b> , Computational Social Science Group, Prof. Dirk Helbing	Feb 2024 – April 2025
• Limits to Growth with feedback loops representing AI and Robotics - Complex system optimization via genetic algorithms	
<b>Student Assistant</b> , Institute for Machine Learning @ETH Zürich	Nov 2023 – Apr 2024
<b>Student Assistant</b> , Institute for Science, Technology and Policy @ETH Zürich	Nov 2022 – Nov 2024
<b>Student Researcher</b> , Rahman-spectroscopy on graphene, Prof. Marika Schleberger	Sept 2020 – Mar 2021

## Publications & Talks

Talk: <b>AI tools for collective awareness and deep communication</b> , At Korea University, Seoul, KU-MIT GHI Forum	Apr 2025
<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
Talk: <b>AI tools for democracy: The future of voting advice applications</b> , At Charles University Prague, The Security destilliary	Oct 2024
<b>Congestions and Spectral Transitions in Time-Lagged Correlations of Motorway Traffic</b> . Physica A: Statistical Mechanics and Its Applications, vol. 649, 2024	Jul 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 <a href="#">Agentic Systems Lab</a> 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	Jul 2024 – Present

**Superconnector** – Matchmaking platform for Networks, Events and Conferences. May 2025 - present  
Semantically searchable social network. Initially rolled out at Harvard Business School for mentor-matching.

**Youtube Content Creator**, Polylog (YouTube Channel) Jul 2024 – Dec. 2024  
• Awardwinning educational videos around theoretical computer science, ~ 100K subscribers, 0.5 - 5M views/vid

**Co-Founder**, The ETH Zürich Alt Protein Project Nov 2023 – Oct 2024  
• Think tank and chapter of the global student movement of Alt Protein Projects, selected and 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.

**Board Member & Co-Organizer**, ZuMUN 2024 May 2023 – Apr 2024  
• Organizing a Model United Nations conference for 100+ attendees  
• Recruiting and leading a team of 30+ people

**Board Member**, ETH Model United Nations Dec 2022 – Jun 2023

**Technical Team Member**, TUM Carbon – Carbon Removal Initiative Nov 2021 – Sept 2022  
• Calculation of in-sorbent CO2 diffusion in capillaries  
• Approximation of thermodynamic exchange processes  
• Pollution Risk assessment

**Team Member**, TUM Boring – Innovation in Tunneling Oct 2021 - March 2022  
• Student initiative at TU Munich and winner of the Not a Boring Competition by SpaceX & The Boring Company

## Skills & Interests

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**Languages:** German and Hungarian (native speaker), English (C1), French (B1)

**Software/coding:** Python (5+ years), Ruby (couple months), Julia (1 semester), React (couple months), MATLAB (1 semester), Mathematica (2 years), Origin (2 years), MS Office, Adobe, Blender

### Interests:

Social Entrepreneurship, AI4Good, Complex System Dynamics, Climate Change (Systemic, intersectional justice and prevention), Ideas of Effective Altruism (critique best described [here](#)), Mindfulness, Rationality, Political theory, Epistemology, Basketball

## Awards and Scholarships

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Winner of Politechathon Berlin 2024 Dec 2024

1st Place in 3Blue1Brown Competition "Summer of Math exposition" Sept 2024

Project Grant for young Students with sustainability focused initiatives - U-Change program Apr 2024 - Dec 2024

Winner of Best Delegate Award at Model UN HSG Dec 2022

Scholar of Promos/DUE Mobil, Scholarship for study-related stays abroad Sept 2021 – Feb 2022

Scholar of the federal merit-based "Deutschland Stipendium" Sept 2021 – Sept 2022

1st Place, National Photography Competition of Deutsche Stiftung Denkmalschutz (3000+ participants) Oct 2016

## Freelance Videography

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**Video Producer**, German Zero e.V. (carbon neutrality initiative) - produced cinema advertisement,  
**My second website**, 6+ years professional experience, 30+ profession/private projects