The **Energy and Technology Policy Group (EPG)** within the Department of Humanities, Social, and Political Sciences of **ETH Zurich** offers a

Position as research assistant: Python programming

Background

Our research centers on questions related to the governance of technological change in the energy, transport and industrial sectors. Specifically, we analyze how policy, and its underlying politics affect the invention, innovation, and diffusion of new technology, and how technological change feedbacks into the policy process.

To measure policy and technological change, we regularly develop new quantitative approaches (e.g., statistical analysis, probabilistic cost models, real options valuation models, topic models, network analysis) and combine them with qualitative methods.

In this role as research assistant, the student will support different group members in their (mostly Python-based) modeling activities.

Exemplary project

We plan to analyze citation networks and texts of global patents for climate-relevant technologies (e.g. Li-ion batteries). The goal is to understand various types of knowledge flows for a given technology between various actors and geographies.

The work will help inform innovation policy formulation for accelerating technological change, and industrial policy formulation for industry localization.

Requirements

We are looking for a student with strong coding skills (especially Python). We are open in terms of disciplinary background and program (e.g. Computer, Engineering or Natural Sciences). Interdisciplinary candidates are welcome. All communication regarding the work will occur in English.

Tasks

- Add features based on network analysis and NLP packages (NetworkX and NLTK) in close collaboration with the team
- Review and improve existing code by actively proposing simplifications and flagging inconsistencies
- Implement creation of figures
- Document code and make it available to other researchers (e.g., via open-source repositories)

Conditions

The student will work in close collaboration with researchers from EPG. Ideally, the candidate would join beginning of the 2023 spring term and be available for at least six months. Monthly workloads are flexible and can be discussed individually. The work can be conducted from the groups' offices in Clausiusstrasse close to ETH's main building or remotely. The hourly wage of 30.7 CHF is in line with ETH standards.

Your application

Your application documents should include a short mail that includes a description of the relevant coding experience, a short CV, and transcript of records (with grades). Please send your complete documents by e-mail to: Anurag Panda (anurag.panda@gess.ethz.ch). The review of applications will start immediately after publication of this ad and will continue until the position is filled.