Me & my Research
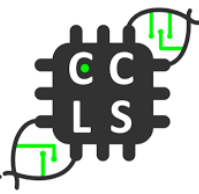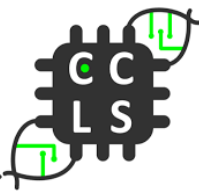
- Mitra Baratchi, Assistant professor, Leiden University

- Short background:

    - PhD (2015), University of Twente

    - Postdoc (2015-2017), University of Twente

    - Assistant professor (2017-now), LIACS, Leiden University

- Current Research Area(s) & Ambitions:

    - My research interests lie in spatio-temporal, time-series, and mobility data modeling. I aim at designing algorithms that extract patterns from such data in a fully automated manner.

    - I have collaborations, notably, with the European Space Agency, Honda Research Institute, various municipalities, and researchers in other scientific disciplines.

My Research Expertise

- Research focus areas/topics

  - Machine learning for spatio-temporal and time-series data

- Research projects (past & ongoing)

  - Physics-aware machine learning from Earth observations

  - Automated machine learning for Earth observations

  - Understanding social interactions in playgrounds

  - Automated machine learning for energy load forecasting

  - Data-driven predictive maintenance

  - Mining pedestrian trajectories

  - Behavior analysis from longitudinal wearables data

- Research Partners (past & ongoing)

  - CML, FSW, ESA, SRON, CHDR, Honda Research Institute

My Project Idea

- Addressed Problem:

    - In general problems that involve improving machine learning pipelines from spatial and temporal data

    - Intervention development through counterfactual prediction

- Research Question(s)

    - How can we predict the impact of interventions from observational data?

- Vision/Mission

    - Goals, Outcomes, (long-term) Impact

    - Beneficiaries of project outcomes (scientific fields, economic sectors, societal groups)

- Project Plan (what you want to do)

- Expertise needed to reach project goals, outcomes & impact (from partners)