

Master Thesis/Bachelor Thesis/Semester Project:

Clinical Data Processing for At-Home Movement Assessment



Background

Kymu is a gamified telerehabilitation platform that enables children with conditions to perform physical therapy at home, making it more engaging, effective, and accessible for everyone involved. Kymu is now taking its next step towards becoming a digital health service.

The Project is driven by Stepan Vedunov and Elia Salerno, two interaction designers. We collaborate directly with the Digital Health Design Living Lab (DHD LL) at ZHdK, combining expertise in health design, serious games, and emerging technology solutions. For the year 2026, we joined the Funding Program DIZH and are part of the ZHdK incubator.

Your Tasks

- Develop a robust **data pipeline** to ingest, clean, and standardise raw kinematic data from markerless pose estimation.
- **Validate data quality** and processing steps to ensure reliability for downstream clinical and ML analysis.
- Explore **data representations** that support clinical decision-making in remote rehabilitation scenarios.

Your Benefits

- **Interdisciplinary Application:** Apply your research methods across design, technology, and clinical need within a functioning team environment and test your hypothesis with actual people.
- **Real-World Experience:** Gain practical experience in digital health development and clinical feasibility testing.
- **Advance a currently worked on Product:** Contribute to Kymu, a validated pediatric telerehabilitation concept, as we pursue crucial clinical pilots and are a funded project.

Your Profile

- ETH Student in Computer Science, Engineering, HEST, or a related field.
- Strong skills in Python and familiarity with data processing libraries
- Interest in medical data, digital health, or human movement analysis.

Contact

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Learn more about Kymu

<https://kymu.dens.studio/>