POSITION ESTIMATION & DRIFT HANDLING

The acquisition of valid gait parameters is the basis of our technology to make effective statements about people's health. The technical challenge in the acquisition of gait parameters with the help of IMUs is handling the sensor technology's drift. When calculating the foot positions during a step, the drift leads to errors due to the double integration of the measured values.

Project Tasks:

- Calculation and mapping of step length, step height, and trajectory of a step.
- Calculation using Python from data source influx DB, output format JSON
- Sensor fusion, data filtering, double integration

EVERSION Technologies is a MedTech start-up based in Constance and accompanies people on their way to a pain-free life. True to the motto SIMPLE. BETTER. We analyze the individual gait over several hours in everyday situations with the help of IMU sensor soles. We simulate the effects of walking and shoes on the body using a precise biomechanical 3D model, independent of location, time, and specialist personnel. This lets customers understand the cause of their complaints transparently for the first time.

EVERSION co-founder and lead software developer Lucas Heitele supervises the project.

Don't hesitate to get in touch with us if you are interested or would like further information.

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