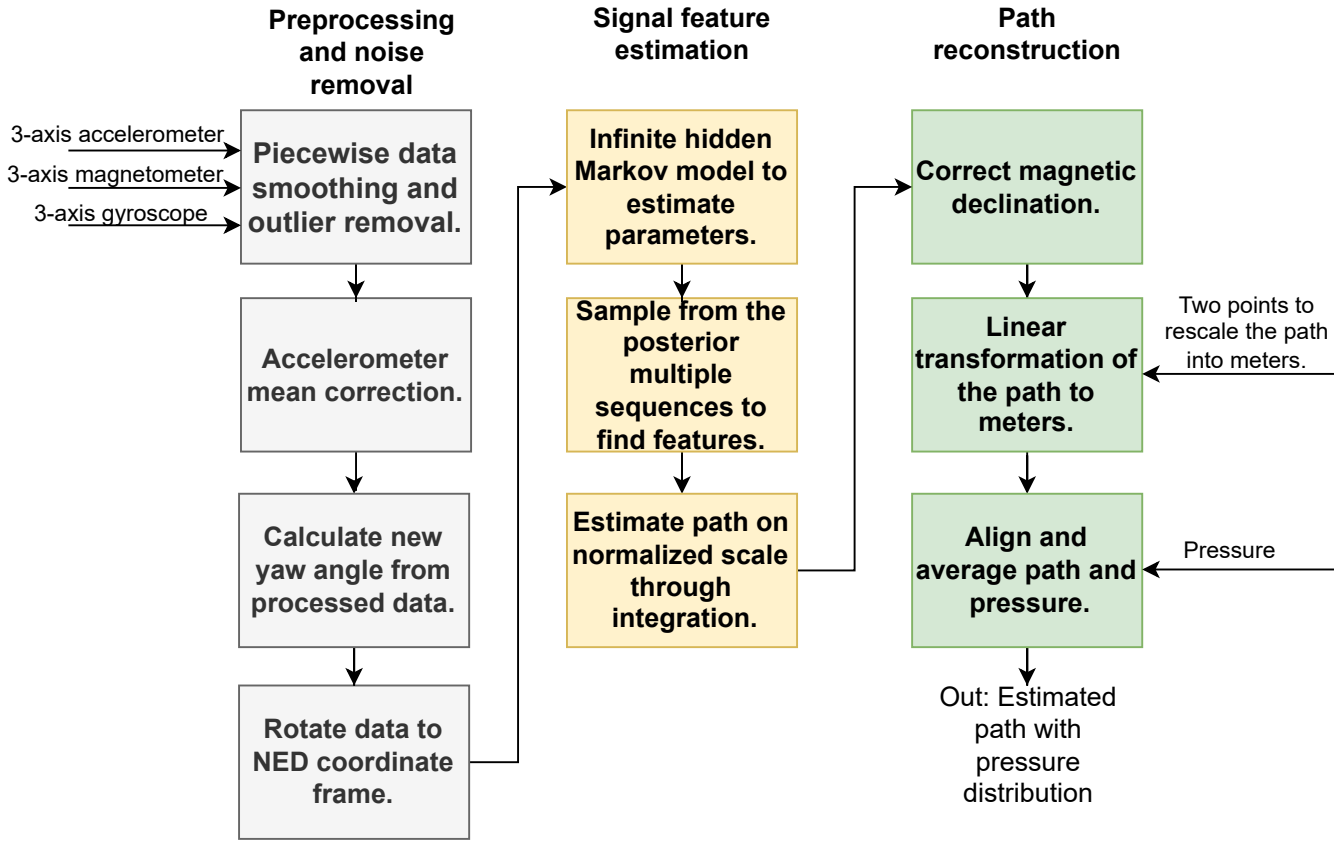
Preprocessing and noise removal
Signal feature estimation
Path reconstruction
3-axis accelerometer
3-axis magnetometer
3-axis gyroscope
Piecewise data smoothing and outlier removal.
Accelerometer mean correction.
Calculate new yaw angle from processed data.
Rotate data to NED coordinate frame.
Infinite hidden Markov model to estimate parameters.
Sample from the posterior multiple sequences to find features.
Estimate path on normalized scale through integration.
Correct magnetic declination.
Linear transformation of the path to meters.
Two points to rescale the path into meters.
Align and average path and pressure.
Pressure
Out: Estimated path with pressure distribution