



### Legend

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|---|---|
| <b>Actors:</b> Patient, Clinician/Neurologist             | <b>Primary Goals:</b> Core system functions |
| <b>Supporting Functions:</b> Data processing, ML training | <b>Association:</b> Actor uses function     |
| <b>Include:</b> Required dependency                       | <b>Extend:</b> Optional extension           |

## Parkinson's Telemonitoring Project Goals:

- Remote disease severity prediction — predict Motor and Total UPDRS scores from voice features
- Voice biomarker identification — extract 16 acoustic parameters (jitter, shimmer, NHR, HNR, RPDE, DFA, PPE, etc.)
- Longitudinal tracking — monitor disease progression over time for 42 patients using 5,875 recordings
- Telemedicine viability assessment — evaluate if voice-only data can reliably support remote patient monitoring
- Non-invasive monitoring — replace clinical visits with remote voice recordings for patient assessment