Telerehab Patient Portal



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Overview



- Over 7.5M individuals in the U.S. have difficulty walking
- Biomotum is working to solve mobility challenges with exoskeleton technology
- Web portal to track device usage for analysis

Client



Dr. Zachary Lerner

- Assistant Prof. for the Dept. of Mechanical Engineering
- Co-Founder of Biomotum
- Aides in the development of the exoskeletons used by the Biomotum

The Biomotum Business Process



Creating To Support

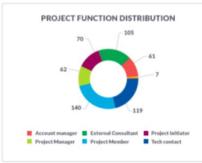
- Developed battery-powered ankle exoskeletons that target children with cerebral palsy
- Walks with the exoskeleton are tested with other physical assistance
- Sell the exoskeletons to physical therapy clinics
- Expand the market for personal use

Problem

- Unable to visually represent data conveniently
- Requires training in MATLAB language
- Patients are unable to see their progress

Solution - Web Portal





Ease of Access

- Accessible by any most devices
- Simple straightforward navigation
- Ability to sign in with google account

Data Analytics

- Analytics of user details (steps taken, progress made, etc)
- Admin/User can quickly download data to local machine or google drive
- Track current device status

Stretch Solution - Interactive Visualization

Ability to create summary report

- Summary report created from selected data categories
- Report would be raw data/easy to read graphs for admin/user use

Smart tool

- Ability to create a individualized tracker on user
- Administrator selects categories based on clients needs

Team Rehab Remote

- Create a web portal to visualize data
- It will assist in the development of the exoskeleton and patient progress
- Can be used for future exoskeleton product data