

How will you sleep tonight? – App for Tracking Sleep



Project Description:

This project aims to build a sleep tracking app on top of our in-house developed software to collect wearable device data (e.g., Fitbit, Apple Watch). In this project, together with our team, the interns will build a cross-platform mobile app to analyze users' activity during the day and night. We aim to deploy a machine learning component in the app to perform prediction tasks, such as (1) waking the user up at the most convenient time (e.g., wake up at the end of sleep cycle between 7am and 7:15am) or (2) suggest behavior changes to increase sleep quality. While the details on the functionalities of the app are open for discussion, we envision an app that will:

- Track activity and sleep
- Collect input data on mobile phone usage and habits that affect sleep (e.g., caffeine/smoke)
- Compare the activity and sleep patterns with internationally accepted guidelines
- Prediction sleep phases and sleep quality

Project Type: Engineering

Duties/Activities:

- App development (potentially using Google's Flutter or Kivy framework)
- Develop machine learning models on real life data

Skills:

- Python (required)
- Mobile app Development (optional, but desired)
- Machine Learning (optional)

Preferred Intern Academic Level:

- 3rd or 4th year Computer Science students (preferably with a high GPA)

Learning Opportunities:

- Full stack app development
- Python data science stack (pandas/sklearn/pytorch)
- Software Engineering processes
- Experience and insight required for becoming a ML Engineer

Expected Team Size: One - two

Mentors

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