ETH
Eidgenössische Technische Hochschule Zürich
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Distributed Computing

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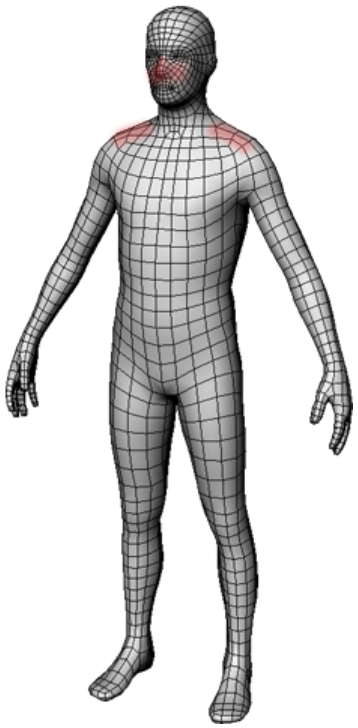
BA/MA/SA/Group/Lab:

Smart Sun Protector

Even though the sun is the essential driving force on the earth, its rays have also negative effects on humans. The ultra violet part of the sunlight spectrum is responsible for thousands to millions of skin cancer cases per year. The main problem is that humans do not have a sense for ultra violet radiation and it is therefore sometimes difficult to assess how dangerous the sun radiation at a given moment is.

In our lab we have developed Sundroid, a small body worn sensor that measures UV radiation and sends the measurement data directly to a smart phone for further computation. The combination of a sensor and a smart phone can help people to become more conscious about their UV exposure and to adapt their behavior. Additionally to the UV measurements the sensor also transmits some other context data.



The goal of this thesis is to use this context data to extend the current smart phone sensor in order to offer even more reliable measurements and helpful tips to the user. It would for example be nice if the smart phone software could inform the user which surfaces on the body have to be protected additionally because they were exposed to the sun for too long. The small energy efficient sensor and the capabilities of the smart phone offer a lot of different possibilities that could be explored by you.

Requirements: Experience in programming and a systematic, scientific way of working are required.

Interested? Please contact me for more details!

Contacts

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