Augmented Reality

About Project Smarta Fabriker: Digitalization and its connection to sustainable production is identified as a key enabler for increasing the number of jobs in Swedish industry. The purpose of Project Smarta Fabriker is to increase the attractiveness of technology and careers in industrial companies, and to spread knowledge about industrial digitalization. During the spring of 2017 a state-of-the-art demonstrator of a smart factory was developed by 80 students in collaboration with over 50 companies. The demonstrator is currently used for training students as well as employees of industrial companies. For 2018 this demonstrator is to be further developed implementing a variety of digital manufacturing concepts where Predictive Maintenance is one of the central themes. To learn more about the project and previous theses, visit www.smartafabriker.se (in Swedish).

With a tough international competition for winning the market of Augmented Reality on mobile devices, both Google and Apple have recently made available their SDKs ARCore and ARKit. When their version 1.0 hits the market (sometime in Winter this year), it will reach hundreds of millions of users around the World.

Tasks

- Analyze usability of AR for industrial environments
- Design and develop AR functionality in the context of Smarta Fabriker
- Integrate new AR functionality with the current Smart Factory app, available at:

The scope for the app is up for discussion, a possible idea is to enhance current components of the real factory with relevant information for technicians (such as explode models). An alternative is to bring users the opportunity to build their own simulated factory with digital blocks on flat surfaces and share on social networks.
Means and location
This thesis is performed in collaboration with Cybercom's Innovation Zone which will provide industrial support and supervision. Thesis students will have access to workplaces at Cybecom Lindholmen and a dedicated mentor specialized in Augmented Reality applications.

Conduction and requirements
This thesis work needs to be conducted by one or two students where at least one person should be fluent in Swedish. Preferably, we are looking for students with background in AR/VR, 3D Modeling, rendering and mobile app development. The thesis is meant to start as soon as possible.

Contact
For questions concerning Project Smarta Fabriker contact Project Manager Johan Bengtsson, 0708 58 19 68, johan.bengtsson@gtc.com. For specific questions concerning the topic of this thesis contact Gabriel Ibanez, 0722 38 84 79, Gabriel.Ibanez@cybercom.com, at Lindholmshpiren 3A, 417 56 Göteborg.

Interviews are held continuously. To apply, send your CV and a cover letter to Gabriel Ibanez Gabriel.Ibanez@cybercom.com as soon as possible, but no later than November 30th, 2017.

Extra Info
- Introducing ARKit for iOS devices: https://www.youtube.com/watch?v=LLRweyZ1KpA
- Introducing ARCore for Android: https://www.youtube.com/watch?v=rFbcOGuDMPk

Cybercom Innovation Team