

Alfredo Cerezo Luna

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Personal portfolio: <http://acwork.es/>
Blog: <https://github.com/Jachu5>
Github: <http://jachu5.github.io>

I am a Computer Engineer, with experience researching about emotions and new interaction techniques based on sensors, formerly I worked as a R&D Software Engineer at Samsung, currently I am enrolled in a postgraduate program of Computer Graphics, Virtual Reality and Games, where my research is focused on the application of Machine Learning techniques to generate visual content such as textures and fluid simulations.

Education

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| Master's Degree in Computer Graphics, Games & Virtual Reality URJC - Universidad Rey Juan Carlos, Spain | 2015 - 2016 |
| Master's Degree in Computer Science, Human Computer Interaction EPFL - Swiss Federal Institute of Technology, Switzerland | 2011 - 2012 |
| Master's Degree in Computer Science UCM - Universidad Complutense de Madrid, Spain | 2005 - 2011 |

Professional Experience

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| Samsung Electronics R&D - R&D Software Engineer My duties covered the elaboration of new ideas for Samsung products and their pilot implementation. My work was mainly focused on new interaction techniques for mobile/wearable devices, software development and the tracking of different conferences, research papers and trends in order to develop new products. | 2013 - 2015 |
| Sia - Software Engineer Software developer in projects related to security, digital certificates, electronic signature on the cloud and mobile software development. | 2012 - 2013 |
| EPFL (Swiss Federal Institute of Technology) – Human Computer Interaction lab collaborator. Researcher and software developer in the study of emotional awareness tools for group music experience. | 2012 - 2013 |

Languages

Spanish: mother tongue.
English: full professional proficiency.
French: limited working proficiency.

Skills

Programming Languages

Java, C++, C, Python, Scala, Kotlin, NumPy, Pandas, HTML5+CSS.

Development

Android, Tizen, Agile techniques, Peer-review, Object Oriented Software Development, SOLID, Design Pattern, TDD, Clean Architecture Sensors, Linux, OS X, Machine Learning.

Tools

Git, Gitlab, Jenkins, SonarQube, Jira, JUnit, Mockito, Dagger2, Android Studio, Gradle, Eclipse, IntelliJ, Visual Studio, Octave, Photoshop, InDesign, Premier, 3ds Max, Unity.

UX/ User study skills

Wireframing, Prototyping, User Testing, Storyboard, UCD.

Patents

Portable device for controlling external apparatus via gesture and operating method for the same.
Martinez Raul, Cerezo Alfredo, et al. 2015 (pending).

Publications

Empatheticons: Designing Emotion Awareness Tool for Group Recommender.
Yu Chen, Xiaojuan Ma, Alfredo Cerezo and Pearl Pu. In the 15th International Conference on Human Computer Interaction (Interaccion2014).

Muscle contraction detection for wrist-worn wearable.
Fernando Fernandez, Alfredo Cerezo, et. al. Samsung Spain R&D, Best Paper Award 2015 contest. (Non-peer reviewed).

Projects

IoT – Smart button (Samsung, 2015)

- Android application to configure and use a smart physical button to execute different actions when pushed, the button is configurable from the device using third parties applications installed on the mobile device by users.

Samsung GEAR: Wrist motion detection (Samsung, 2013 - 2014)

- Arm movement recognition engine for wrist-worn wearable, present in all Samsung's Tizen smart watches.
- I Designed and implemented an innovative data wrangling process and movement recognition algorithm that reaches a success ratio of 97% in the identification of 6 arm movements with wrist rotation (up, down, left, right, pull and punch) in real time.
- I Designed and implemented the data visualization software and an automated testing tool to improve the testing time and the reliability of the recognition engine.

Samsung GEAR: Hand gesture detection (Samsung, 2015)

- A hand gesture recognition framework using electromyography (EMG).
- I conducted the sensor type/emplacement and the user study to detect the most suitable combination; we successfully identified a combination with a 85.71% detection rate.
- In charge of Android/Gear S2 demo application implementation.
- Research paper elaboration.

Randstad: A Cloud platform to electronically sign work contracts (Sia, 2013)

- A system to remotely sign work contract using digital certificates stored on a cloud storage system.
- I implemented the REST services to coordinate different tools used by the system using Jersey and Java.

Empatheticons (Kineticons): Designing emotion awareness tools for group music experience (EPFL, 2012 - 2013)

- We investigated the roles of emotion awareness tools and how they may enable connectedness.
- I designed and developed a set of animation to transmit emotions called Empatheticons, following UCD methodology.
User evaluation: (M = 4.18 / 5, SD = . 53).
- I designed, prototyped and implemented a social music app interface using the Empatheticons.
User evaluation: (M = 4.18 / 5, SD = . 72).

eSIM: Remote SIM provisioning for consumer devices (Samsung, 2015)

- This project covers the Consumer Remote Profile Provisioning for Embedded SIM standard elaboration by the GSMA.

Certificates

edX Honor Certificate for Tackling the Challenges of Big Data.
Functional Programming Principles in Scala, Lic: 5K78VWUP76.
Machine Learning (Coursera, Stanford University).
Introduction to Data Science (Udacity).
Human Computer Interaction (Coursera, Stanford University).

Press

Sammobile (2015). "This is the future of your Gear watch (according to new Samsung patents)". November 11.
GSMA (2015). "GSMA announces mobile industry initiative to create a global remote provisioning specification for consumer devices". March 2.
Cnet (2014). "Samsung Gear 2 gestures a wrist-flick away (hands-on)". June 4.
Elconfidencial (2014). "La firma digital en la nube de Randstad supera los 100.000 contratos". June 7.

Workshops & Lectures

Speaker at the Samsung Developers Summit: Gear S2 dev.
Android Animation.
Object Oriented Design Patterns.

Volunteer

BabyUp app technical advisor.