Diana Affi

Software Engineer at Avaloq

Expérience

Software Engineer ， Avaloq
September 2015 - Present (4 months)

Research Assistant ， Ecole d'ingénieurs et d'architectes de Fribourg
January 2014 - July 2015 (1 year 7 months)

My responsibilities include planning, research (establishing a state of the art, assessing risks, study feasibility, testing, etc.) and development of innovative project ideas for the HumanTech institute

Software Engineer ， Freelance Software Engineer
November 2012 - August 2014 (1 year 10 months)

This experience allowed me to get in touch with the whole process of project development going from defining clients' needs, project management, risk management, setting specifications and developing to putting into production and maintaining the realised product.

Tutor ， Ecole Polytechnique Fédérale de Lausanne (EPFL), Université de Fribourg, Haute École Spécialisée
March 2014 - June 2014 (4 months)

Tutor of the "Internet for girls" course organised by the service of equality of the EPFL and the IT Department of the Fribourg University.

Intern - Software Engineer ， FP netWorth
March 2012 - September 2012 (7 months)

My position as a software developer required from me to execute tasks assigned by the team leader for different in house projects. I was responsible of creating the database architecture, business layer and client interfaces. The main project I worked on was a CRM web application.

Intern - Research Assistant ， College of engineering and architecture of Fribourg
July 2012 - August 2012 (2 months)

As an internship for my 4th year in engineering I worked on a research project with the College of Engineering and Architecture of Fribourg where I had to conceive, plan and build a functional innovative product.

Hostess ， Babel Restaurant
January 2009 - January 2012 (3 years 1 month)

Managing reservations and private dinner parties in a 4 star restaurant

Certifications

Certificate in business and professional english (BPE)
Georgetown University 2012

Project management fundamentals aligned with the PMI standards and CAPM
Align Management Solutions SAL July 2013

CCNA Routing & Switching
Cisco June 2013

Expériences de volontariat

Keeping company of elderly people ， Red Cross Youth
November 2014 - Present (1 year 2 months)

Langues

English	(Professional working proficiency)
French	(Professional working proficiency)
Polish	(Native or bilingual proficiency)
Arabic	(Native or bilingual proficiency)

Projets

CRM
mars 2012 à septembre 2012
Members:Diana Affi

-Database modeling and web interface publishing for a CRM database. -Business modeling of financial processes for CRM. Technologies: Visual Studio, C#, .NET, SQL server management, javascript, CSS, html.

E-Shops, e-commerce website and mobile application
novembre 2012 à juin 2013
Members:Diana Affi, Paul Jasser, Joseph El Mallah

Web and mobile application development for an e-commerce client including an interface for shops and customers. Shipping and online payment are also integrated. Technologies: JSF, REST, JAVA, JSP, HTML, CSS, javascript, jQuery, mySQL, Android, Objective-C

Mobile and Web Application for security consultants
septembre 2012 à avril 2013
Members:Diana Affi

This project was my bachelor project. It was in collaboration with Potech Consulting company. The main purpose was to develop a mobile application for client and questionnaires management on an iPad. The consultants of Potech Consulting will be using this application during the interviews with their clients where they will input all the answers to predefined questions and then they will be able to generate automatically

a full report. A web application was also developed for administrative management. Technologies used: Objective-C / Java Server Faces Framework / MySQL / Latex compiler

Crowd Safety via GPS monitoring

novembre 2013 à Poste actuel

Members:Diana Affi, Joseph El Mallah

Monitoring people during events via their smartphones is a new technique that enhances the level of safety during mass gatherings. This technology allows to send GPS data on a regular basis and conduct analysis to calculate the local density and pressure of the crowd. These measures can help signalling critical situations before they occur, allowing an early prevention from police forces. Technologies: Objective-C, PHP, HTML, Javascript

Petrogames

mars 2014 à mai 2014

Members:Diana Affi, Joseph El Mallah

Petrogames is an online platform designed by Petrofac Academy to conduct a series of challenges for final years students. The platform should support over 300 users from around the world competing at the same time. Other than the challenges, the platform also provides a newsfeed, instant messaging and profile editing. Security was one core value to ensure a fair challenge free of cheating.

Smart Wheelchair

juin 2012 à août 2012

Members:Diana Affi

In the smart wheelchair project I worked on the simulator part where I designed a robot with motors and sensors. The robot then was programmed in a way to avoid obstacles and know how to continue its way without hitting any of them. The platform used to develop the simulator is ROS (Robot Operating System)

SensiTV (Smart Emotional System for Impaired people's TV)

septembre 2014 à Poste actuel

Members:Diana Affi

SENSI-TV is a R&D project developed as part of a Master thesis at HES-SO//MSE in the TIC department. It is destined to put in practice and consolidate project management skills and competencies. These competencies are divided into 4 groups called meta-competencies: 1. Manage the project 2. Analyse and specify the product 3. Develop and implement 4. Validate, criticise, comment and document Digital video databases grow rapidly showing an increase in capacity and content variety. Most research efforts focalise on improving the extraction of video semantics which leaves the retrieval of affective information less explored. From another side, people suffering of hearing or visual impairments are not being able to enjoy a movie in all of its aspects. In fact some solutions exist to provide these people with the semantic content of the video using for instance subtitles for the visually impaired and audio-description for the hearing impaired, but solutions that bring them the emotions contained in the movies are not so common yet. Even though these solutions help the hearing and visually impaired people to understand the content of the corresponding movie but they deliver raw and static cognitive information lacking all the affective level. Studies appeared concerning the possible ways that can assure delivery of emotions to this type of people through different

techniques relying on their complementary functional senses. The limitation of these techniques is that they rely on the presence of emotional meta-data related to the videos which is not the case yet and that their application is not practiced in home environments. #SENSIT-TV aims to cover this lack and accompany the cognitive information contained in a video with the affective information when delivering it to the TV users in ways compatible for people with hearing and/or visual impairments so they could experience all of the sensations offered by the movie.

Attention detection and exploitation for NGTV

septembre 2013 à juin 2014

Members:Diana Affi

The Smart TVs have opened new perspectives concerning the user experience while watching. To be able to offer content intelligently, it is important to understand the expectations of the user. This can be done during the initialisation of the system by asking some questions, for example about his interests. This would be a tedious approach since all the systems tend to be automated nowadays. So a better way would be to develop an intelligent system that analyses the user's behaviour in order to adapt the service dynamically and adaptively to the user's expectations. My work applies the Second screen concept by extracting attention information from a camera linked to a TV screen and then exploiting this information in a mobile application that will offer an additional service to the user.

Beat It !

mai 2014 à mai 2014

Members:Diana Affi, Jacky Casas, Eliane Maalouf, Joseph El Mallah

Application pour smartphone développée durant l'atelier Make "International Sports Hackdays" organisé par Opendata.ch. Cette application utilise les données ouvertes des transports publics suisses pour proposer un challenge à l'utilisateur comme "Es-tu capable d'arriver à l'arrêt de bus X avant le bus ? Il arrive dans 50 secondes."

Compétences et expertise

C#
XML
C++
Java
Web Services
JavaScript
Visual Studio
SQL
OOP
iOS development
Web Applications
PHP
Databases
HTML
jQuery

CSS
MySQL
.NET
Microsoft SQL Server
ASP.NET
Eclipse
HTML 5
Linux
Android
Objective-C
JSF
JSP
RESTful WebServices
Xcode
LINQ
WCF
HTML5

Formation

HES-SO Lausanne Suisse
Master's Degree, Computer Engineering, 2013 - 2015

Ecole Supérieure des Ingénieurs de Beirut Université Saint Joseph
Bachelor of Engineering (BEng), Engineering, 2008 - 2013

Centres d'intérêt

New technologies, travelling, reading, fitness, health.

Publications

SensiTV: Smart EmotioNal System for Impaired People's TV
TVX '15 Proceedings of the ACM International Conference on Interactive Experiences for TV and Online Video June 3, 2015
Authors: Diana Affi, Joël Dumoulin, Omar Abou Khaled

In this paper, an innovative solution is presented: a smart emotional system for impaired people's TV. It aims to accompany the cognitive information contained in a movie, with the affective content. The affect is then communicated to the movie viewers in ways compatible for people with hearing and/or visual impairments, to let them experience all of the sensations offered by the movie. To do so, emotion recognition techniques are used to classify movie scenes into seven basic emotions. These emotions are then represented, in realtime, while the movie is playing, to the viewers, using environmental lights, emotional subtitles and a second screen application that integrates vibrations, emoticons and background music.

Movie's Affect Communication Using Multisensory Modalities
MM '15 Proceedings of the 23rd Annual ACM Conference on Multimedia Conference October 13, 2015
Authors: Diana Affi, Joël Dumoulin, Omar Abou Khaled

The goal of the system presented in this demo is to make possible for the visually and hearing impaired audience to live empathetic viewing experiences using their home theatre. In this work we suggest the incorporation of new emotion communication modalities into the standard television, to provide the targeted audience with sensations that they do not have the opportunity to enjoy because of their disability.

eRS: A System to Facilitate Emotion Recognition in Movies

MM '15 Proceedings of the 23rd Annual ACM Conference on Multimedia Conference

Authors: Diana Affi, Joël Dumoulin, Omar Abou Khaled

We present eRS, an open-source system whose purpose is to facilitate the workflow of emotion recognition in movies, released under the MIT license. The system consists of a Django project and an AngularJS web application. It allows to easily create emotional video datasets, process the videos, extract the features and model the emotion. All data is exposed by a REST API, making it available not only to the eRS web application, but also to other applications. All visualizations are interactive and linked to the playing video, allowing researchers to easily analyze the results of their algorithms. The system currently runs on Linux and OS X. eRS can be extended, to integrate new features and algorithms needed in the different steps of emotion recognition in movies.

Affect Recognition in a Realistic Movie Dataset Using a Hierarchical Approach

ASM '15 Proceedings of the 1st International Workshop on Affect & Sentiment in Multimedia October 10, 2015

Authors: Diana Affi, Joël Dumoulin, Omar Abou Khaled

Affective content analysis has gained great attention in recent years and is an important challenge of content-based multimedia information retrieval. In this paper, a hierarchical approach is proposed for affect recognition in movie datasets. This approach has been verified on the AFEW dataset, showing an improvement in classification results compared to the baseline. In order to use all the visual sentiment aspects contained in the movies excerpts of a realistic dataset such as FilmStim, deep learning features trained on a large set of emotional images are added to the standard audio and visual features. The proposed approach will be integrated in a system that communicates the emotions of a movie to impaired people and contribute to improve their television experience.

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Prenez contact avec Diana sur LinkedIn