

# Ciprian Adrian Corneanu

PHD STUDENT IN COMPUTER VISION

Gran Via de les Corts Catalanes, 479, 08007, Barcelona, Spain

☎ (+34) 677 81 15 46 | ✉ cipriancorneanu@gmail.com | 🌐 www.cipriancorneanu.com | 📄 https://github.com/cipriancorneanu

**Interests:** Affective Computing, Automatic Facial Expression Analysis, Structured Learning, Graphical Probabilistic Models

## Education

### Universitat Autònoma de Barcelona

Barcelona, Spain

M.Sc. IN COMPUTER VISION

2014 - 2015

- Thesis: *Facial Expression Analysis of Neurologically Impaired Children*
- Subjects include: Optimization and Inference Techniques for Computer Vision, Machine Learning Techniques for Computer Vision, Video Analysis, Visual Recognition, 3D Vision.

### Télécom SudParis

Paris, France

B.S. IN TELECOMMUNICATIONS

2009 - 2011

- Thesis: *Motion Estimation. Dealing with Covered and Uncovered Regions.*
- Part of a Double Degree agreement with The Technical University of Bucharest. Major in High Tech Imaging.
- Subjects include: Statistics, Object oriented programming, Multimedia indexation, Image, video & 3D graphics compression, Protection of digital content, Multimedia games.
- Projects include: Basic request by content image search engine, Simple 3D game with a built in hand gesture recognition interface, Image compression using dictionaries.

### Technical University of Bucharest

Bucharest, Romania

B.S. IN ELECTRONICS, TELECOMMUNICATIONS AND INFORMATION TECHNOLOGY

2006 - 2009

- *Subjects include:* Signals and systems, Digital signal processing, Digital integrated circuits, Information transmission theory, Micro-controllers.
- *Projects include:* Industrial project regarding signature recognition for Internet-banking.

## Experience

### C.R.S. iiMotion, a Tehnicolor spin-off

Freiburg/Villingen, Germany

DEVELOPMENT ENGINEER

Oct. 2011 - Sep. 2014

- I worked on developing motion estimation algorithms for plasma TVs for LG Electronics. I traveled to the LGE Plasma R&D lab in Seoul, Korea for providing support in implementation. Since September 2012 I worked together with a medical instruments producer for developing algorithms for measuring optical properties of endoscopes.

### C.R.S. iiMotion, a Tehnicolor spin-off

Villingen, Germany

INTERN

Feb. 2011 - Sep. 2014

- Internship on developing motion estimation techniques for plasma TVs frame conversion.

## Publications

### CONFERENCES

- *Continuous Supervised Descent Method for Facial Landmark Localisation.* Marc Oliu Simon, Ciprian Corneanu, Laszlo Jeni, Jeffrey Cohn, Takeo Kanade. *Asian Conference on Computer Vision*, 2016
- *ChaLearn LAP 2016: First Round Challenge on First Impressions - Dataset and Results.* Víctor Ponce-López, Baiyu Chen, Marc Oliu, Ciprian Corneanu, Albert Clapés, Isabelle Guyon, Xavier Baró, Hugo Jair Escalante, Sergio Escalera. *European Conference on Computer Vision Workshops*, 2016
- Irani, R., Nasrollahi, K., Simon, M., Corneanu, C., Escalera, S., Bahnsen, C., ... & Petrini, L. (2015). *Spatiotemporal Analysis of RGB-DT Facial Images for Multimodal Pain Level Recognition.* In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops* (pp. 88-95).

### JOURNALS

- Corneanu, C. A., Oliu, M., Cohn, J. F., & Escalera, S. . *Survey on RGB, 3D, Thermal, and Multimodal Approaches for Facial Expression Recognition: History, Trends, and Affect-related Applications.* *TPAMI*, 2016
- Marc Oliu Simon, Ciprian Corneanu, Kamal Nasrollahi, Sergio Escalera Guerrero, Olegs Nikisins, Yunlian Sun, Haiqing Li, Zhenan Sun, Thomas B Moeslund, Modris Greitans. (2016). *Improved RGB-DT based face recognition.* In *Int Biometrics*.

## Projects

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### Neurochild

2014 - 2016

Main Researcher: Dr. Sergio Escalera.

- Facial expression analysis for clinical rehabilitation of neurologically impaired patients in a gamification context. The project involved collaboration with a consortium of universities and private companies. I contributed actively in development and project coordination. A project in collaboration with ICA, Institut Guttmann, Politecnica de Madrid

### Cynny

2014 - 2016

Main Researcher: Dr. Sergio Escalera

- The objective of the project is to develop a package of computer vision modules for commercial use. The modules include scene and object recognition, facial expression analysis, age and gender detection. They will be integrated in an innovative social network developed by an Italian private company. I am actively involved in project coordination, writing technical proposals, maintaining constant dialogue with the client and development. A project in collaboration with Computer Vision Center (CVC)

### xBadges

2015 - 2016

Main Researcher: Dr. Sergio Escalera

- The objective of this project is to develop a system that is capable to identify, validate and certify abilities of video game players by using facial analysis technologies, and the OpenBadges technology (an online standard to recognize and verify learning). I am actively involved in development and project coordination and planning.

## Organization

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### ChaLearn Looking at People 2016 ECCV Workshop and Challenge

2016

PART OF THE ORGANIZING TEAM FOR THE CHALEARNLAP 2016 EUROPEAN CONFERENCE OF COMPUTER VISION WORKSHOP AND CHALLENGE. I WAS IN CHARGE WITH PRESENTING THE RESULTS OF THE CHALLENGE TO THE AUDIENCE AND SESSION CHAIR OF ONE OF THE PRESENTATION SESSIONS AT THE WORKSHOP.

Amsterdam, The Netherlands

### ChaLearn Looking at People 2016 CVPR Workshop and Challenge

2016

PART OF THE ORGANIZING TEAM FOR THE CHALEARNLAP 2016 COMPUTER VISION AND PATTERN RECOGNITION WORKSHOP AND CHALLENGE. I WAS SESSION CHAIR OF ONE OF THE PRESENTATION SESSIONS AT THE WORKSHOP.

Las Vegas, USA

## Supervision

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### Anàlisi facial en entorns d'interacció home-màquina

2015

AITOR MORESO

- Co-supervised the final project for a Mathematics B.S. student, on the subject of face alignment. During this project a series of methods were tested by the student, evaluating and comparing its accuracy under different rotation and self-occlusion conditions.

## Miscellaneous

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### COMPUTER SKILLS

**Programming**, C++, Python, Matlab

**Others**, Latex, OpenCV

### LANGUAGES

**Romanian**, Mother tongue

Native

**English**, excellent working knowledge (CAE - grade B, IELTS 7.5, TOEIC 980)

C1/C2

**French**, excellent working knowledge, studied in Paris for one year. All courses in French.

C1

**Spanish**, excellent working knowledge, living in Spain for more than two years.

B2

**German**, good working level, worked in Germany for more than 3 years.

B2

### HONOURS & AWARDS

- The paper *Continuous Supervised Descent Method for Facial Landmark Localisation*. Marc Oliu Simon, Ciprian Corneanu, Laszlo Jeni, Jeffrey Cohn, Takeo Kanade. *Asian Conference on Computer Vision*, 2016 got accepted for an oral presentation. The acceptance rate for oral presentations at the Asian Conference of Computer Vision for the year 2014, was 3.9%.