

**MASTER DISSERTATIONS - Acade**

<b>NIU</b>	<b>NAME</b>
1333813	Baró Mas, Arnau
1425372	Barroso Laguna, Axel
1451855	Benito Piñero, Gonzalo
1446058	Bustos Rodriguez, Maria Cristina
1332918	Campmany Canes, Victor
1446111	Carné Herrera, Marc
1447683	Casanova Pagà, Arantxa
1396005	Castro Latorre, Sergio
1330097	Cebrian Trunas, Pau
1304815	Cucurull Preixens, Guillem
1333437	Gomez Zurita, Jose Luis
1304054	Lebron Casas, Luis
1442514	López Álvarez, Xián
1443991	Luque López, Belén
1443251	Martorell Nadal, Onofre
1430441	Mosella Montoro, Albert
1417996	Pérez Mayos, Laura
1448686	Rodríguez Outeiral, Roque
1461879	Ruiz López, Idoia
1277096	Sancho Asensio, Sergio
1449986	Talavera Martínez, Lidia

## Academic Year 2016-2017

Project Title
Recognition of handwritten music scores with deep learning techniques
Scale-Invariant Neural Network
Smartgym
Simulating hand gestures data through a Generative Adversarial Network for gesture recognition
Low level operations for Theano using GPUs
Exploration of non-basic emotions for facial expression recognition
Iterative inference for semantic segmentation
Incremental learning for object/face classification
Adversarial semantic and instance segmentation of driving sequences
Graph CNNs for biomedical data analysis
Efficient DNNs for Semantic Segmentation of On-board Images
Video summarization with subjectivity constraints for criminal investigation and other real-life use cases
Localizing concepts and understanding CNN representations
Foveated super-resolution in telepresence scenarios
Sparse to dense optical flow with occlusion estimation
Deep Learning based Vehicle Detection for Advanced Driver Assistance Systems
Improving the quality of video-to-language models by an optimized annotation of the training material
Tracking of endoluminal structures to recover 3D information from videobronchoscopy
Person re-identification for video surveillance
Reflectance estimation using an EURNet deep network architecture
Diagnosis of Parkinsonian disorders based on FDG-PET scan brain images

<b>Supervisor Name</b>	
Alicia Fornés	UAB
David Vázquez / Krystian Mikolajczyk	UAB
Josep Lladós / Sergio Escalera	UAB
Josep R. Casas	UPC
David Vázquez / Juan C. Moure / Frédéric Bastien	UAB
Xavier Giró	UPC
David Vazquez / Antonio M. Lopez Peña / Adriana Romero	UAB
Elisa Sayrol / Ramon Morros	UPC
Joan Serrat	UAB
David Vazquez / Jordi González / Adriana Romero	UAB
Antonio Manuel Lopez Peña	UAB
Luis Herranz	UAB
Agata Lapedriza	UOC
Javier Ruiz Hidalgo	UPC
Coloma Ballester and Gloria Haro	UPF
Javier Ruiz Hidalgo	UPC
Leo Wanner	UPF
Carles Sanchez / Debora Gil	UAB
Bogdan Raducanu	UAB
Maria Vanrell	UAB
Xavier Giro-i-Nieto / Michael Biehl	UPC

<b>Company /external institution</b>
Imperial College of London (Erasmus practiques)
FC Barcelona
Exipple Studio
University of Montreal
Infantium
University of Montreal
University of Montreal
United Technologies Research Center
FICOSA ADAS
United Technologies Research Center
University of Groningen

BY	NIU	NAME	Mark
1	1333813	Baró Mas, Arnau	8,3
2	1425372	Barroso Laguna, Axel	9,0
3	1451855	Benito Piñero, Gonzalo	
4	1332918	Campmany Canes, Victor	10,0
5	1447683	Casanova Pagà, Arantxa	10,0
6	1330097	Cebrian Trunas, Pau	9,3
7	1304815	Cucurull Preixens, Guillem	9,6
8	1333437	Gomez Zurita, Jose Luis	9,8
9	1304054	Lebron Casas, Luis	8,4
10	1448686	Rodríguez Outeiral, Roque	7,4
11	1461879	Ruiz López, Idoia	9,4
12	1277096	Sancho Asensio, Sergio	
1	1442514	Xian Lopez Alvarez	6,9
1	1446058	Bustos Rodriguez, Maria Cristina	8,0
2	1446111	Carné Herrera, Marc	NP
3	1396005	Castro Latorre, Sergio	NP
4	1443991	Luque López, Belén	9,4
5	1430441	Mosella Montoro, Albert	7,3
6	1449986	Talavera Martínez, Lidia	
1	1443251	Martorell Nadal, Onofre	7,5
2	1417996	Pérez Mayos, Laura	9,3

Distribution	%	
UAB	12	57
UOC	1	5
UPC	6	29
UPF	2	10
	21	

Author	Title	Advisors	Presentation
Albert Mosella Montoro	Deep Learning based Vehicle Detection for Advanced Driver Assistance Systems	Javier Ruiz Hidalgo (UPC)	9/18/2017
Arantxa Casanova Pagà	Densely Connected Residual Networks for semantic segmentation	Antonio López Peña (UAB) Adriana Romero (UAB)	9/18/2017
Arnau Baró Mas	Optical Music Recognition by Long Short-Term Memory Recurrent Neural Networks	Alicia Fornes (UAB)	9/18/2017
Axel Barroso Laguna	Key.Net: Keypoint Network	David Vázquez (UAB)	9/18/2017

Project Title
Recognition of handwritten music scores with deep learning techniques
Key.Net: Keypoint Network
Smartgym
Low level operations for Theano using GPUs
Iterative inference for semantic segmentation
Adversarial semantic and instance segmentation of driving sequences
Graph CNNs for biomedical data analysis
Efficient DNNs for Semantic Segmentation of On-board Images
Video summarization with subjectivity constraints for criminal investigation and other real-life use cases
Tracking of endoluminal structures to recover 3D information from videobronchoscopy
Person re-identification for video surveillance
Reflectance estimation using an EURNet deep network architecture
Localizing concepts and understanding CNN representations
Simulating hand gestures data through a Generative Adversarial Network for gesture recognition
Exploration of non-basic emotions for facial expression recognition
Incremental learning for object/face classification
Foveated super-resolution in telepresence scenarios
Deep Learning based Vehicle Detection for Advanced Driver Assistance Systems
Diagnosis of Parkinsonian disorders based on FDG-PET scan brain images
Sparse to dense optical flow with occlusion estimation
Improving the quality of video-to-language models by an optimized annotation of the training material


**Committee**

[Josep R. Casas\(UPC\)](#)  
[Maria Vanrell Martorell \(UAB\)](#)  
[Antonio López Peña \(UAB\)](#)  
[Javier Ruiz Hidalgo \(UPC\)](#)

[Xavier Giró i Nieto\(UPC\)](#)  
[Xavier Baró\(UOC\)](#)  
[Dimosthenis Karatzas \(UAB\)](#)

[Fernando Vilariño\(UAB\)](#)  
[Josep Lladós Canet \(UAB\)](#)  
[Maria Vanrell Martorell \(UAB\)](#)  
[Simone Tassani\(UPF\)](#)  
[Karim Lekadir\(UPF\)](#)



Belén Luque López	Super Resolution on 3D Point Clouds using Deep Learning	Javier Ruiz Hidalgo (UPC)	9/18/2017
Guillem Cucurull Preixens	Graph Convolutional Neural Networks for Cortical Mesh Segmentation	Jordi González (UAB) Adriana Romero (UAB)	9/18/2017
Idoia Ruiz López	Optimizing Speed/Accuracy Trade-off for Person Re-identification via Knowledge Distillation	Bogdan Raducanu (UAB)	9/18/2017
Jose Luis Gomez Zurita	Tiramisu: Efficient DNNs for Semantic Segmentation	Antonio López Peña (UAB)	9/18/2017
Laura Pérez Mayos	Improving the quality of video-to-language models by an optimized annotation of the training material	Federico Sukno (UPF) Leo Wanner (UPF)	9/18/2017
Lidia Talavera Martínez	Identification of Parkinson's and Alzheimer's diseases through the analysis of FDG-PET images using machine learning techniques.	Xavier Giró i Nieto (UPC)	9/18/2017
Luis Lebron Casas	Video summarization with subjectivity constraints for criminal investigation and other real-life use cases	Luís Herranz (UAB)	9/18/2017
Maria Cristina Bustos Rodríguez	Generating hand depth image data through a deep generative model for gesture recognition	Josep R. Casas (UPC)	9/18/2017



---

[Josep R. Casas\(UPC\)](#)

▪ [Federico Sukno\(UPF\)](#)

[Ramon Baldrich Caselles \(UAB\)](#)

---

[Javier Ruiz Hidalgo \(UPC\)](#)

▪ [Xavier Giró i Nieto\(UPC\)](#)

[Ernest Valveny Llobet \(UAB\)](#)

---

[Xavier Baró\(UOC\)](#)

▪ [Ramon Morros\(UPC\)](#)

[Joan Serrat Gual\(UAB\)](#)

---

[Joan Serrat Gual\(UAB\)](#)

▪ [Maria Vanrell Martorell \(UAB\)](#)

[Joost van de Weijer \(UAB\)](#)

---

[Alicia Fornes\(UAB\)](#)

▪ [Bogdan Raducanu \(UAB\)](#)

[Luís Herranz\(UAB\)](#)

---

[Xavier Otazu\(UAB\)](#)

▪ [Albert Oliveras\(UPC\)](#)

[Luís Herranz\(UAB\)](#)

---

[Alicia Fornes\(UAB\)](#)

▪ [Gloria Haro \(UPF\)](#)

[Oriol Ramos\(UAB\)](#)

---

[Javier Ruiz Hidalgo \(UPC\)](#)

▪ [Katerine Díaz Chito \(UAB\)](#)



---

Onofre Martorell Nadal	Sparse to dense optical flow with occlusion estimation	Gloria Haro (UPF)	9/18/2017
Pau Cebrian Trunaz	Adversarial training for Semantic Segmentation: a performance analysis	Joan Serrat Gual (UAB)	9/18/2017
Roque Rodríguez Outeiral	Retrieving 3D information of tracheal structures from videobronchoscopy	Debora Gil (UAB)	9/18/2017
Sergi Sancho Asensio	Reflectance estimation using an EURNNet deep network architecture	Maria Vanrell Martorell (UAB)	7/17/2017
Victor Campmany Canes	Accelerating Inference for Image Captioning with Theano	David Vázquez (UAB)	9/18/2017
Xián López Álvarez	Localizing concepts and understanding CNN representations	Ágata Lapedriza Garcia (UOC)	9/18/2017

---

[Xavier Giró i Nieto\(UPC\)](#)

[Karim Lekadir\(UPF\)](#)

---

[Antonio López Peña \(UAB\)](#)

[Xavier Sanchez Pujadas \(UAB\)](#)

[Javier Ruiz Hidalgo \(UPC\)](#)

---

[Xavier Baró\(UOC\)](#)

[Joost van de Weijer \(UAB\)](#)

[Albert Oliveras\(UPC\)](#)

---

[Bruno Paun \(UPF\)](#)

[Ramon Baldrich Caselles \(UAB\)](#)

[Robert Benavente\(UAB\)](#)

---

[Javier Vazquez Corral \(UPF\)](#)

[Xavier Baró\(UOC\)](#)

[Xavier Baró\(UOC\)](#)

---

[Dimosthenis Karatzas \(UAB\)](#)

[Josep Lladós Canet \(UAB\)](#)

[Fernando Vilariño\(UAB\)](#)

---

[Bogdan Raducanu \(UAB\)](#)

[Federico Sukno\(UPF\)](#)

---



#	NIU	NAME	Project Title
1	1304054	Lebron Casas, Luis	Video summarization with subjectivity constraints
2	1461879	Ruiz López, Idoia	Person re-identification for video surveillance
3	1446111	Carné Herrera, Marc	Exploration of non-basic emotions for facial expres
4	1430441	Mosella Montoro, Albert	Deep Learning based Vehicle Detection for Advanc
5	1451855	Benito Piñero, Gonzalo	Smartgym
6	1446058	Bustos Rodriguez, Maria Cristina	Simulating hand gestures data through a Generativ
1	1332918	Campmany Canes, Victor	Low level operations for Theano using GPUs
2	1447683	Casanova Pagà, Arantxa	Iterative inference for semantic segmentation
3	1304815	Cucurull Preixens, Guillem	Graph CNNs for biomedical data analysis
4	1449986	Talavera Martínez, Lidia	Diagnosis of Parkinsonian disorders based on FDG-
5	1425372	Barroso Laguna, Axel	Scale-Invariant Neural Network
1	1333813	Baró Mas, Arnau	Recognition of handwritten music scores with deep
2	1330097	Cebrian Trunas, Pau	Adversarial semantic and instance segmentation of
3	1333437	Gomez Zurita, Jose Luis	Efficient DNNs for Semantic Segmentation of On-b
4	1448686	Rodríguez Outeiral, Roque	Tracking of endoluminal structures to recover 3D in
5	1277096	Sancho Asensio, Sergio	Reflectance estimation using an EURNet deep netw
6	1442514	López Álvarez, Xián	Localizing concepts and understanding CNN repre
7	1396005	Castro Latorre, Sergio	Incremental learning for object/face classification
8	1443991	Luque López, Belén	Foveated super-resolution in telepresence scenarios
9	1443251	Martorell Nadal, Onofre	Sparse to dense optical flow with occlusion estimat
10	1417996	Pérez Mayos, Laura	Improving the quality of video-to-language models

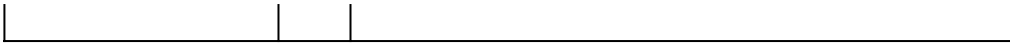
<b>Supervisor Name</b>		<b>Company</b>
Luis Herranz / external	UAB	YES
Bogdan Raducanu / external	UAB	YES
Xavier Giró	UPC	YES
Javier Ruiz Hidalgo	UPC	YES
Josep Lladós / Sergio Escalera	UAB	YES
Josep R. Casas	UPC	YES
David Vázquez / Juan C. Moure / Frédéric Bastien	UAB	
David Vazquez / Antonio M. Lopez Peña / Adriana Romero	UAB	
David Vazquez / Jordi González / Adriana Romero	UAB	
Xavier Giro-i-Nieto / Michael Biehl	UPC	
David Vázquez / Krystian Mikolajczyk	UAB	
Alicia Fornés	UAB	
Joan Serrat	UAB	
Antonio Manuel Lopez Peña	UAB	
Carles Sanchez / Debora Gil	UAB	
Maria Vanrell	UAB	
Agata Lapedriza	UOC	
Elisa Sayrol / Ramon Morros	UPC	
Javier Ruiz Hidalgo	UPC	
Coloma Ballester and Gloria Haro	UPF	
Leo Wanner	UPF	





Author	Mark	Title
Albert Mosella Montoro	7,31	Deep Learning based Vehicle Detection for Advanced Driver Assistance Systems
Arantxa Casanova Pagà	10	Densely Connected Residual Networks for semantic segmentation
Arnau Baró Mas	8,3	Optical Music Recognition by Long Short-Term Memory Recurrent Neural Networks
Axel Barroso Laguna	9	Key.Net: Keypoint Network
Belén Luque López	9,9	Super Resolution on 3D Point Clouds using Deep Learning
Guillem Cucurull Preixens	9,6	Graph Convolutional Neural Networks for Cortical Mesh Segmentation
Idoia Ruiz López	7,4	Optimizing Speed/Accuracy Trade-off for Person Re-identification via Knowledge Distillation
Jose Luis Gomez Zurita	9,8	Tiramisu: Efficient DNNs for Semantic Segmentation
Laura Pérez Mayos	9,3	Improving the quality of video-to-language models by an optimized annotation of the training material
Lidia Talavera Martínez	?	Identification of Parkinson's and Alzheimer's diseases through the analysis of FDG-PET images using machine learning techniques.
Luis Lebron Casas	8,4	Video summarization with subjectivity constraints for criminal investigation and other real-life use cases
Maria Cristina Bustos Rodriguez	8	Generating hand depth image data through a deep generative model for gesture recognition
Onofre Martorell Nadal	7,5	Sparse to dense optical flow with occlusion estimation
Pau Cebrian Trunas	9,3	Adversarial training for Semantic Segmentation: a performance analysis
Roque Rodríguez Outeiral	7,4	Retrieving 3D information of tracheal structures from videobronchoscopy
Sergi Sancho Asensio	9,4	Reflectance estimation using an EURNet deep network architecture
Victor Campmany Canes	10	Accelerating Inference for Image Captioning with Theano
Xián López Álvarez	6,9	Localizing concepts and understanding CNN representations

Advisors	Presentation	Committee
Javier Ruiz Hidalgo (UPC)	9/18/2017	<a href="#">Josep R. Casas(UPC)</a>
		<a href="#">Maria Vanrell Martorell (UAB)</a>
		<a href="#">Antonio López Peña (UAB)</a>
Antonio López Peña (UAB)	9/18/2017	<a href="#">Javier Ruiz Hidalgo (UPC)</a>
Adriana Romero (UAB)		<a href="#">Xavier Giró i Nieto(UPC)</a>
		<a href="#">Xavier Baró(UOC)</a>
Alicia Fornes (UAB)	9/18/2017	<a href="#">Dimosthenis Karatzas (UAB)</a>
		<a href="#">Fernando Vilariño(UAB)</a>
		<a href="#">Josep Lladós Canet (UAB)</a>
David Vázquez (UAB)	9/18/2017	<a href="#">Maria Vanrell Martorell (UAB)</a>
		<a href="#">Simone Tassani(UPF)</a>
		<a href="#">Karim Lekadir(UPF)</a>
Javier Ruiz Hidalgo (UPC)	9/18/2017	<a href="#">Josep R. Casas(UPC)</a>
		<a href="#">Federico Sukno(UPF)</a>
		<a href="#">Ramon Baldrich Caselles (UAB)</a>
Jordi González (UAB)	9/18/2017	<a href="#">Javier Ruiz Hidalgo (UPC)</a>
Adriana Romero (UAB)		<a href="#">Xavier Giró i Nieto(UPC)</a>
		<a href="#">Ernest Valveny Llobet (UAB)</a>
Bogdan Raducanu (UAB)	9/18/2017	<a href="#">Xavier Baró(UOC)</a>
		<a href="#">Ramon Morros(UPC)</a>
		<a href="#">Joan Serrat Gual(UAB)</a>
Antonio López Peña (UAB)	9/18/2017	<a href="#">Joan Serrat Gual(UAB)</a>
		<a href="#">Maria Vanrell Martorell (UAB)</a>
		<a href="#">Joost van de Weijer (UAB)</a>
Federico Sukno (UPF)	9/18/2017	<a href="#">Alicia Fornes(UAB)</a>
Leo Wanner (UPF)		<a href="#">Bogdan Raducanu (UAB)</a>
		<a href="#">Luís Herranz(UAB)</a>
Xavier Giró i Nieto (UPC)	9/18/2017	<a href="#">Xavier Otazu(UAB)</a>
		<a href="#">Albert Oliveras(UPC)</a>
		<a href="#">Luís Herranz(UAB)</a>
Luís Herranz (UAB)	9/18/2017	<a href="#">Alicia Fornes(UAB)</a>
		<a href="#">Gloria Haro (UPF)</a>
		<a href="#">Oriol Ramos(UAB)</a>
Josep R. Casas (UPC)	9/18/2017	<a href="#">Javier Ruiz Hidalgo (UPC)</a>
		<a href="#">Katerine Díaz Chito (UAB)</a>
		<a href="#">Xavier Giró i Nieto(UPC)</a>
Gloria Haro (UPF)	9/18/2017	<a href="#">Karim Lekadir(UPF)</a>
		<a href="#">Antonio López Peña (UAB)</a>
		<a href="#">Xavier Sanchez Pujadas (UAB)</a>
Joan Serrat Gual (UAB)	9/18/2017	<a href="#">Javier Ruiz Hidalgo (UPC)</a>
		<a href="#">Xavier Baró(UOC)</a>
		<a href="#">Joost van de Weijer (UAB)</a>
Debora Gil (UAB)	9/18/2017	<a href="#">Albert Oliveras(UPC)</a>
		<a href="#">Bruno Paun (UPF)</a>
		<a href="#">Ramon Baldrich Caselles (UAB)</a>
Maria Vanrell Martorell (UAB)	7/17/2017	<a href="#">Robert Benavente(UAB)</a>
		<a href="#">Javier Vazquez Corral (UPF)</a>
		<a href="#">Xavier Baró(UOC)</a>
David Vázquez (UAB)	9/18/2017	<a href="#">Xavier Baró(UOC)</a>
		<a href="#">Dimosthenis Karatzas (UAB)</a>
		<a href="#">Josep Lladós Canet (UAB)</a>
Ágata Lapedriza Garcia (UOC)	9/18/2017	<a href="#">Fernando Vilariño(UAB)</a>
		<a href="#">Bogdan Raducanu (UAB)</a>



		<a href="#">Federico Sukno(UPF)</a>
--	--	-------------------------------------