Ana García del Molino, PhD

*During my Ph.D. I worked on visual understanding and personalization for consumer video summarization.
I aspire to design AI's to solve societal needs.
My research interests also include video content analysis and generative models for image transformation.*

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Professional Experience

BIGO
- BIGO Tech., Singapore
- April 2019-Today
- Sr. AI Algorithm Engineer

DCNNs to predict PCA parameters for graphic 3D modeling.

GANs for face expression manipulation.

DCNN-based autoencoders and U-Nets for image and video refinement and style transfer.

VAE · GAN · Face Landmark Detection and Tracking · Style Transfer · 3D Rendering

Python · TensorFlow · PyTorch · C# · Blender

gifs.com
- gifs.com, Zurich
- Summer 2017
- Research Consultant

Use of a deep ranking model with personalizable input to customize the highlight detection in videos.

Action Classification · Recommendation Systems · Pattern Recognition · Action Understanding

Python · TensorFlow · DataFrames · SQL · Prototyping

A*STAR
- I2R, A*STAR, Singapore
- 2014-March 2019
- Ph.D. Candidate
- Supervised by Joo-Hwee Lim

Visual Understanding and Personalization for an Optimal Recollection Experience

Modeling of lifelog photo-stream sequences using LSTM networks, to detect daily activities and learn associations between life events.

Use of conditional random fields and probabilistic inference for interactive video summarization with diversity and query-driven objectives.

Use of image quality analysis and semantic retrieval techniques for query-based lifelog summarization.

Object Detection · Activity Recognition · Facial Recognition · Transfer Learning · Spatio-Temporal Learning with LSTM · Episodic Memory

MATLAB · Caffe · Python · TensorFlow · C++ · Prototyping

- National Inst. of Informatics, Tokyo
- 2013
- Research Intern

Extension of the Bag of Words instance search technique by geometric coding and quantization error compensation.

Obtect Detection and Retrieval · SURF & SIFT Descriptors · Hamming Embedding · Bag of Words

MATLAB · C++ · OpenCV

Education and Skills

NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

PhD. in Cognitive Systems and Visual Computing
- School of Computer Science and Engineering
- 2015-2019

UPC

BSc. and MSc. in Telecomm Engineering
- TelecommBCN (ETSETB)
- 2008-2013

- 🇪🇸 Native Speaker
- (Catalan) Native Speaker
- 🇬🇧 Fluent
- 🇫🇷 Fluent
- 🇩🇪 Beginner

Proficient in Matlab, Python, TensorFlow, OpenCV. Linux user. Git version controlling, etc.

I enjoy sailing, the cinema and the opera, playing board games... And I make earrings!

Make the most of your hobbies! I was a sailing instructor in Barcelona the summers of '08 to '12.
Commitment to the community. I am the leader of the LeanIn Circle "AI Singapore". As a student I was:
Vice-President of the IEEE Barcelona Student Branch in 2011-2013;
Member of the School's Evaluation Committee and Board; intern at the International Student Office.

Honors and Awards

Obra Social "La Caixa" — 2014
Fundación "la Caixa"

Private fellowship to support postgraduate studies in North America and Asia-Pacific.

SINGA Scholarship — 2015

Award given by A*STAR to international students to pursue their PhD at a Singapore University.

Selected Publications

📄 **Ana Garcia del Molino**, Joo-Hwee Lim, and Ah-Hwee Tan. 2018. Predicting Visual Context for Unsupervised Event Segmentation in Continuous Photo-streams. In *Proceedings of the 26th ACM international conference on Multimedia (MM '18).*

📄 **Ana Garcia del Molino** and Michael Gygli. 2018. PHD-GIFs: Personalized Highlight Detection for Automatic GIF Creation. In *Proceedings of the 26th ACM international conference on Multimedia (MM '18).*

📄 **Ana Garcia del Molino**, Xavier Boix, Joo-Hwee Lim, and Ah-Hwee Tan. 2017. Active Video Summarization: Customized Summaries via On-line Interaction with the User. In *AAAI Conference on Artificial Intelligence.*

📄 **Ana Garcia del Molino**, Cheston Tan, Joo-Hwee Lim, and Ah-Hwee Tan. 2017. Summarization of Egocentric Videos: A Comprehensive Survey. In *IEEE Transactions on Human-Machine Systems, 47(1).*

Other Publications

📄 **Ana Garcia del Molino**, Bappaditya Mandal, Jie Lin, Joo Hwee Lim, Vigneshwaran Subbaraju, Vijay Chandrasekhar. 2017. VC-I2R@ ImageCLEF2017: Ensemble of Deep Learned Features for Lifelog Video Summarization. In *CLEF working notes.*

📄 Qianli Xu, Vigneshwaran Subbaraju, **Ana Garcia del Molino**, Jie Lin, Fen Fang, Joo-Hwee Lim, Liyuan Li, Vijay Chandrasekhar. 2017. Visualizing Personal Lifelog Data for Deeper Insights at the *NTCIR-13 Lifelog-2 Task.*

📄 Jie Lin, **Ana Garcia del Molino**, Qianli Xu, Fen Fang, Vigneshwaran Subbaraju, Joo-Hwee Lim, Liyuan Li, Vijay Chandrasekhar. 2017. VCI2R at the *NTCIR-13 Lifelog-2 Lifelog Semantic Access Task.*

📄 **Ana Garcia del Molino**, Qianli Xu, Joo-Hwee Lim. 2016. Describing lifelogs with convolutional neural networks: A comparative study. In *Proceedings of the first Workshop on Lifelogging Tools and Applications.*

📄 **Ana Garcia del Molino**. 2016. First Person View Video Summarization Subject to the User Needs. In *Proceedings of the 24th ACM international conference on Multimedia (MM'16).*

📄 **Ana Garcia del Molino**, Bappaditya Mandal, Liyuan Li, Lim Joo Hwee. 2015. Organizing and retrieving episodic memories from first person view. In *IEEE International Conference on Multimedia & Expo Workshops (ICMEW).*

(Check all my publications in my Scholar profile)