



GENERAL  
INFORMATION

Legal Name: DE ZARZA I CUBERO Irene.  
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CAREER

**The Chinese University of Hong Kong (CUHK).** Hong Kong.  
Research Assistant. October 2017 - February 2018.  
Department of Computer Science and Engineering.

**Carnegie Mellon.** Pittsburgh.  
Research Assistant. June 2017 - July 2017.  
School of Computer Science. Robotics.

**City University of Hong Kong.** Hong Kong.  
Senior Research Assistant. January 2017 - May 2017.  
Department of Electrical Engineering.

**ETH Zürich (ETHZ).** Zürich.  
Graduate Research Assistant. April 2015 - September 2016.  
Laboratory of Computer Vision.

**City University of Hong Kong.** Hong Kong.  
Research Associate. July 2015 - August 2015.  
Department of Computer Science.

**Carnegie Mellon.** Pittsburgh.  
Research Associate I. June 2014 - August 2014.  
School of Computer Science. Robotics.

EDUCATION

**ETH Zürich (ETHZ).** Zürich.  
Doctor of Science. April 2015 - March 2017 (withdraw, post-candidacy).  
Laboratory of Computer Vision.

**Carnegie Mellon.** Pittsburgh.  
Master of Science (exchange). May 2014 - February 2015.  
School of Computer Science. ML Department and Robotics.

**Thesis:** A Library for Fast Kernel Expansions with Applications to Computer Vision and Deep Learning.

**City University of Hong Kong.** Hong Kong.

Master of Science. September 2013 - February 2015.

Department of Electrical Engineering.

**GPA: 3.86** (0-4.3 scale).

**Classification of Award: Distinction.**

**Academic Distinctions:**

- MS Internship Sponsorship 2014.  
Award for top performing students. Robotics. Carnegie Mellon. Pittsburgh.

**Universitat Autònoma de Barcelona (UAB).** Barcelona.

Degree in Mathematics. 2011 - 2013.

Minor in Pure Mathematics.

Faculty of Sciences.

**Thesis:** Physical-layer Network Coding: Design of Constellations over Rings.

**Grade: Excellent.** First Class with Distinction.

**Universitat de Barcelona (UB).** Barcelona.

Mathematics, Licentiate. First Cycle. 2007 - 2011.

Department of Mathematics and Computer Science.

**University Entrance Examination.**

**Average Grade: 8.93/10.** First Class with Distinction.

**Academic Distinctions:**

- First year scholarship for university studies. Ministry of Education.  
This award is given to the top nationwide first year university students.
- First year scholarship for university studies. Caixa Manresa.  
This award is given to the top university entrance examination average grades in the region of Catalunya.

**Technological Bacalaureate.** 2005 - 2007.

**Average Grade: 10/10.** First Class Degree and Honorary Scholarship.

**Academic Distinctions:**

- Outstanding Thesis of Research: Squaring the Circle. Study of the different mathematical approaches to solve the ancient problem of the quadrature of the circle.
- Outstanding Curriculum.

## PUBLICATIONS

Curtó, **Zarza**, Kitani, King and Lyu.

Doctor of Crosswise: Reducing Over-parametrization in Neural Networks.

<http://arxiv.org/pdf/1905.10324>

Curtó, **Zarza**, Torre, King and Lyu.

High-resolution Deep Convolutional Generative Adversarial Networks.

<http://arxiv.org/pdf/1711.06491>

Curtó, **Zarza**, Smola and Gool.  
Segmentation of Objects by Hashing.  
<http://arxiv.org/pdf/1702.08160>

Curtó, **Zarza**, Yang, Smola, Torre, Ngo and Gool.  
McKernel: A Library for Approximate Kernel Expansions in Log-linear Time.  
<http://arxiv.org/pdf/1702.08159>

Curtó, **Zarza** and Vázquez.  
Secure Network Coding: Overview and State-of-the-art.  
Universitat Autònoma de Barcelona. Bellaterra. 2012.  
[http://blogs.uab.cat/zarza/files/2019/05/nc\\_decurto12.pdf](http://blogs.uab.cat/zarza/files/2019/05/nc_decurto12.pdf)

## DISSERTATIONS

Master of Science.  
A Library for Fast Kernel Expansions with Applications to Computer Vision and Deep Learning.  
Supervisors: Ngo and Smola.  
Carnegie Mellon. Pittsburgh. 2014.  
<http://zarza.hk/z/dezarza.pdf>  
[http://zarza.hk/z/slides\\_dezarza.pdf](http://zarza.hk/z/slides_dezarza.pdf)

Degree in Mathematics.  
Physical-layer Network Coding: Design of Constellations over Rings.  
Supervisors: Vázquez and Mondelo.  
Universitat Autònoma de Barcelona. Bellaterra. 2013.  
[http://blogs.uab.cat/zarza/files/2019/05/pfc\\_dezarza.pdf](http://blogs.uab.cat/zarza/files/2019/05/pfc_dezarza.pdf)  
[http://blogs.uab.cat/zarza/files/2019/05/slides\\_pfc\\_dezarza.pdf](http://blogs.uab.cat/zarza/files/2019/05/slides_pfc_dezarza.pdf)

## WORK EXPERIENCE

**Institut d'Educació Secundària Joan Coromines.** Barcelona.  
Teaching Assistant. 2005 - 2006.

## LANGUAGES

English -

**TOEFL Internet Based test.** 11-12-2016. **Score 102/120.**

## SERVICES

First European Training School in Network Coding: Random Network Coding and Designs over  $GF(q)$ . Universitat Autònoma de Barcelona (UAB). Barcelona. 4 - 8 February 2013.

From designs over  $GF(q)$  to applications of networking: a cross-road for mathematics, computer science and engineering.

Attendee and Volunteer.

## EXTRACURRICULAR ACTIVITIES

Program of Open Mentoring. Department of Computer Science. The University of Hong Kong. 2014 - 2018.

Symposium of the Royal Society of Mathematics, The Millennium Problems. Awarded with an assistance grant by Institut de Matemàtica de la Universitat de Barcelona (UB). Barcelona. 1 - 3 June 2011.

Course in Investment and Financial Markets. Technical Analysis and Risk Management. Barcelona. 23 - 26 May 2011.

Course in Investment and Financial Markets. Barcelona. 18 - 21 April 2011.

Competition of Entrepreneurship. EMPRÈN UPC. 1st Edition. Universitat Politècnica de Catalunya (UPC). Finalist project awarded with honorable mention and 1000 euros. Barcelona. 14 March 2011 - 14 June 2011.

## PROGRAMMING

C, C++, Java, Python, MATLAB and Prolog.

## SOFTWARE

L<sup>A</sup>T<sub>E</sub>X, R, Maple, Mathematica and EViews.