europass Curriculum vitae

## PERSONAL INFORMATION


Konstantinos Bacharidis

Leoforos Ethnikis Antistaseos 13, Heraklion, Crete

+30 69869563838 +30 2811117815

kbacharidis@csd.uoc.gr, kbach@ics.forth.gr

linkedin.com/in/konstantinos-bacharidis


Gender Male | Date of birth 12 November 1989

## EDUCATION

February 2017 - Present

### Ph.D. in Computer Science

Department of Computer Science, University of Crete, Heraklion, Greece.

Thesis: “Human activity recognition for fine-grained daily activity scenarios with the assistance of deep learning”
Thesis Supervisor: Prof. Antonis Argyros
Committee: Prof. Panos Trachaniaas, Dr Xenophon Zabulis

March 2014 - October 2016

### M.Sc. in Electrical and Computer Engineering (2-year program)

School of Electrical and Computer Engineering, Technical University of Crete, Chania, Greece.

Thesis: “Motion structure analysis in Rivers for evaluation of dangerous events”
Thesis Supervisor: Prof. Michalis Zervakis
Committee: Associate Prof. Y. Papaefstathiou, Associate Prof. Michail G. Lagoudakis
GPA: 9.67/10.0

September 2007 - March 2014

### Diploma in Electronic and Computer Engineering (5-year program)

School of Electrical and Computer Engineering, Technical University of Crete, Chania, Greece.

Thesis: “Fluid Flow Motion Estimation using Video Data”
Thesis Supervisor: Prof. Michalis Zervakis
Committee: Prof. Euripides G.M Petrakis, Associate Prof. Michail G. Lagoudakis
GPA: 7.50/10.0

## PUBLICATIONS

### Conferences


1. Paravolidakis, V.; **Bacharidis, K.**; Sarri, F.; Ragia, L. ; Zervakis M. Reduction of Building Façade Model Complexity using Computer Vision, IEEE International Conference on Imaging Systems and Techniques (IST), 2016, DOI: 10.1109/IST.2016.7738269
2. **Bacharidis, K.**, Ragia, L., Politis, M., Moirogiorgou, K., & Zervakis, M. E. (2016). 3D Building Reconstruction using Stereo Camera and Edge Detection. In VISIGRAPP (4: VISAPP) (pp. 715-724), DOI: 10.5220/0005852707150724
3. **Bacharidis K**, Moirogiorgou K, Sibetheros I, Savakis A, Zervakis M, River Flow Estimation Using Video Data (2014) IEEE International Conference on Imaging Systems and Techniques (IST 2014). Santorini Island, Greece, pp 173–178, DOI: 10.1109/IST.2014.6958468

Journals

1. **Bacharidis, K.**, Moirogiorgou, K., Koukiou, G. et al. Multimed Tools Appl (2018) 77: 9535. https://doi.org/10.1007/s11042-017-5148-1
2. **Bacharidis, K.**, Sarri, F., Paravolidakis, V., Ragia, L.and Zervakis, M. , Fusing Georeferenced and Stereoscopic Image Data for 3D Building Façade Reconstruction. ISPRS Int. J. Geo-Inf. 2018, 7, 151, https://doi.org/10.3390/ijgi7040151

Book Chapters

1. **K. Bacharidis** , K. Moirogiorgou, G. Livanos, A. E. Savakis and M. Zervakis, Methods for Estimating the Optical Flow on Fluids and Deformable River Streams: A Critical Survey, In: Smart Water Grids: A Cyber-Physical Systems Approach (2018), CRC Press, 255 - 290, ISBN-10: 1138197939

## HONORS AND DISTINCTIONS

Conferences

1. **Best Student Paper Award** - IEEE International Conference on Imaging Systems and Techniques (IST 2016), for *Reduction of Building Façade Model Complexity using Computer Vision*.
2. **Best Student Paper Award** - IEEE International Conference on Imaging Systems and Techniques (IST 2014), for *River flow estimation using video data*.

## WORK EXPERIENCE

April 2017 - Present

### Graduate Student Researcher

Foundation of Research and Technology - Hellas (FORTH)
Institute of Computer Science, Computer Vision and Robotics Laboratory

July 2014 – Aug 2015

### Graduate Student Researcher

Technical University of Crete, School of Electrical and Computer Engineering, Digital Image and Signal Processing Laboratory
Project: CYBERSENSORS - High Frequency Monitoring System for Integrated Water Resources Management of Rivers, THALES ESF and NSRF program

Working in a research team carrying out in-depth qualitative evaluation of optical flow estimation algorithms and investigating application capabilities of these algorithms for fluid flow estimation.

## TEACHING ASSISTANCE EXPERIENCE

February 2018 – June 2018

### CS-587: Neural Networks and Hierarchical Representation Learning

University of Crete, Department of Computer Science

September 2017 – January 2018

### CS-119: Linear Algebra

University of Crete, Department of Computer Science

February 2017 – June 2017

### CS-118: Discrete Mathematics

University of Crete, Department of Computer Science

February 2014 – July 2014

### TEL603: Special Topics in Image Processing

Technical University of Crete, School of Electrical and Computer Engineering

## PERSONAL SKILLS

Mother tongue(s): Greek

Other language(s)

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---|---|---|---|---|---|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C2 | C2 | C2 | C2 | C2 |

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference (CEF) level

### Research Interests

- Deep Learning, Image Processing, Computer Vision, Machine Learning, Computer Graphics, Pattern Recognition and Web Designing
- Software Engineering, Programming Languages

### Technical skills

- Programming Languages/Software Development Tools: C++, C, Java, HTML, JavaScript, Python, MySQL, flex, bison, VHDL, Tensorflow, Keras, WebGL, Three.js
- Embedded Systems: Software/Hardware codesign for FPGAs (Xilinx ISE/EDK).
- Application Software: TEX (LATEX, BIBTEX), Microsoft Office, Open-office.
- Software Development Tools: Mathworks MATLAB, Microsoft Visual Studio, Eclipse IDE, Spyder, PyCharm
- Operating Systems: Linux, Microsoft Windows.

## ADDITIONAL INFORMATION

### Other Interests - Hobbies

- Athletic Activities: Ping-Pong, Bicycling
- Programming Activities: designing applications for Arduino Micro-controllers
- Foreign Language Learning: Russian *(currently learning)*