

Jean-Baptiste Boin

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Ph.D. graduate interested in computer vision, mobile visual search, augmented reality.

EDUCATION

Stanford University, Ph.D., Electrical Engineering Graduated from the <i>Image, Video and Multimedia Systems</i> research group (advisor: Bernd Girod). GPA: 4.05/4.00	2012-2019
Stanford University, M.S., Electrical Engineering	2012-2014
École polytechnique (France), B.S. Multidisciplinary training and specialization in Electrical Engineering. GPA: 4.18/4.00	2009-2012

RELEVANT PROJECTS

Image descriptor aggregation for Efficient Retrieval (Ph.D. thesis) Developed a theoretical framework for aggregation and applied insights to real-world retrieval tasks	2015-2019
Efficient Panorama Database Indexing for Indoor Localization (CBMI 2019) Developed an end-to-end panorama database representation to maximize retrieval speed	2018-2019
Recurrent Neural Networks for Person Re-identification Revisited (MIPR 2019) Proposed a simplification of an existing video representation technique while increasing retrieval performance	2017-2018
Art++ (supported by the Brown Institute for Media Innovation) Responsible for the technical part on the development of a platform for creation of AR museum tours Developed a mobile application using state-of-the-art vision algorithms	2014-2016
Effective Fisher Vector Aggregation for 3D Object Retrieval (ICASSP 2017) Developed an image-based retrieval system achieving high compression of a video database	2015-2016

WORK EXPERIENCE

CrowdAI (USA) Machine Learning Engineer	Nov 2019 (current)
Google (USA) Intern in the Mobile Vision research team <ul style="list-style-type: none">Integration and enhancements of existing systems for multi-object tracking	Jun-Sep 2017
STMicroelectronics (France) Intern in a research team specialized in radiation hardened and ultra-low voltage hardware design <ul style="list-style-type: none">Elaboration of a custom test protocol to be run on microprocessors for evaluation of their robustness to errors	Apr-Aug 2012
Red Tech Consulting (Saudi Arabia) Junior consultant in a telecom consulting company for a project expanding the Saudi Internet network	Jul-Aug 2011

TEACHING EXPERIENCE

Teaching Assistant (Stanford University) <ul style="list-style-type: none">Digital Image Processing (EE368)The Fourier Transform and its Applications (EE261)	2015, 2016, 2018, 2019 Summer 2013
Grader (Stanford University) <ul style="list-style-type: none">Introduction to Linear Dynamical Systems (EE263)Digital Signal Processing (EE264)The Fourier Transform and its Applications (EE261)	Fall 2013 Fall 2013 Summer 2013

HONORS AND AWARDS

• Best Paper Session, CBMI (<i>Efficient Panorama Database Indexing for Indoor Localization</i>)	2019
• Best Paper Award, MIPR (<i>Recurrent Neural Networks for Person Re-identification Revisited</i>)	2019
• Best Paper Award for Industry, ICIP (<i>Depth Augm. Stereo Panorama for Cinematic VR with Focus Cues</i>)	2016
• SCIEN Industry Affiliates Meeting: Apple Poster Award (<i>Depth Augmented Stereo Panoramas for Cinematic VR</i>), Intel Poster Award (<i>Art++: Augmented reality in museums</i>)	December 2015
• Ranked 6 th /135 at the Stanford Electrical Engineering Ph.D. qualifying examination	January 2013
• First rank at the École polytechnique entrance examination	July 2009

SKILLS

Programming:	General purpose tools (Python, C++, MATLAB) Mobile development (Android: Java and native C++) Machine learning frameworks (Tensorflow/Keras, Torch/PyTorch, Caffe) Basics in front-end and back-end web development (HTML, CSS, JavaScript, PHP, MySQL)
Languages:	English (fluent); French (native); Italian (intermediate); Turkish (intermediate); Japanese (basic)