



**Vedran Vukotić**

Address:  
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Country: France  
Nationality: Croatian, Italian  
Place and date of birth: Zagreb, Croatia, xx.xx.1985.  
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## ***CURRICULUM VITAE***

### **EDUCATION**

**INRIA/IRISA Rennes and INSA Rennes** Rennes, France  
***PhD in Computer Science*** Sept. 2017  
**Thesis:** Deep Neural Architectures for Automatic Representation Learning From Multimedia Multimodal Data

**Faculty of Electrical Engineering and Computing** Zagreb, Croatia  
***Master of Science in Computer Science, GPA: 4.347/5*** Jul. 2014  
**Thesis:** Deep Neural Networks for Image Classification

**Faculty of Electrical Engineering and Computing** Zagreb, Croatia  
***Bachelor of Computer Science, GPA: 3.788/5*** Jul. 2012  
**Thesis:** A Computer Vision Framework for Mobile Platforms

**Faculty of Maritime Studies** Rijeka, Croatia  
***Master of Science in Nautical Studies and Maritime Transport Technology, GPA: 5/5*** Oct. 2010  
**Thesis:** Analysis of Static and Dynamic Transverse Ship Stability

### **PUBLICATIONS**

Vedran Vukotić, Vivien Chappelier, Teddy Furon. “*Are Classification Deep Neural Networks Good for Blind Image Watermarking?*”. Entropy, Volume 22, Issue 2, Feb. 2020

V. Vukotić, C. Raymond. “*Mining Polysemous Triplets with Recurrent Neural Networks for Spoken Language Understanding*”. Interspeech. 2019, Graz, Austria, Sept. 2019

Vedran Vukotić, Vivien Chappelier, Teddy Furon. “*Are Deep Neural Networks good for blind image watermarking?*”. IEEE International Workshop on Information Forensics and Security (WIFS) 2018. Hong Kong, China. Dec. 2018

V. Vukotić. “*Deep neural architectures for automatic representation learning from multimedia multimodal data*”. PhD Thesis INSA Rennes. Sept. 2017

V. Vukotić, C. Raymond, G. Gravier. “*A Crossmodal Approach to Multimodal Fusion in Video Hyperlinking*”. IEEE MultiMedia Special Issue: Vision and Language Integration Meets Multimedia Fusion. Apr. 2018

V. Vukotić, S-L Pinteá, C. Raymond, G. Gravier, J. C. van Gemert. “*One-Step Time-Dependent Future Video Frame Prediction with a Convolutional Encoder-Decoder Neural Network*”, ICIAP 2017, Catania, Italy, Sept. 2017

M. Dinarelli, V. Vukotić, C. Raymond. “*Label-dependency coding in Simple Recurrent Networks for Spoken Spoken Language Understanding*”. Interspeech. 2017, Stockholm, Sweden, Aug. 2017

V. Vukotić, C. Raymond, G. Gravier, “*Generative Adversarial Networks for Multimodal Representation Learning in Video Hyperlinking*”, ICMR 2017, Bucharest, Romania, Jun. 2017

R. Bois, V. Vukotić, A-R. Šimon, R. Sicre, C. Raymond, P. Sébillot, G. Gravier, “*Exploiting Multimodality in Video Hyperlinking to Improve Target Diversity*”, International Conference on Multimedia Modeling 2017, Reykjavík, Iceland, Jan. 2017

V. Vukotić, S-L. Pinteá, C. Raymond, G. Gravier, J. Van Gemert, “*One-Step Time-Dependent Future Video Frame Prediction with a Convolutional Encoder-Decoder Neural Network*”, Netherlands Conference on Computer Vision (NCCV) 2016, Lunteren, The Netherlands, Dec. 2016

V. Vukotić, C. Raymond, G. Gravier, “*Multimodal and Crossmodal Representation Learning from Textual and Visual Features with Bidirectional Deep Neural Networks for Video Hyperlinking*”, ACM workshop on Vision and Language Integration Meets Multimedia Fusion 2016, Amsterdam, The Netherlands, Oct. 2016

V. Vukotić, C. Raymond, G. Gravier, “*A step beyond local observations with a dialog aware bidirectional GRU network for Spoken Language Understanding*”, Interspeech 2016, San Francisco, USA, Sept. 2016

V. Vukotić C. Raymond, G. Gravier, “*Bidirectional Joint Representation Learning with Symmetrical Deep Neural Networks for Multimodal and Crossmodal Applications*”, ICMR 2016, New York, USA, June 2016

V. Vukotić, C. Raymond, G. Gravier, “*Is it time to switch to Word Embedding and Recurrent Neural Networks for Spoken Language Understanding?*”, Interspeech 2015, Dresden, Germany, Sept. 2015

V. Vukotić, J. Krapac, S. Šegvić, “*Convolutional Neural Networks for Croatian Traffic Signs Recognition*”, CCVW 2014, Zagreb, Croatia, Sept. 2014

V. Braut, M. Čuljak, V. Vukotić, S. Šegvić, “*Estimating OD Matrices at Intersections in Airborne Video - a Pilot Study*”, MIPRO, Opatija, Croatia, May 2012

## EMPLOYMENT

### Lamark / IMATAG

R&D Engineer / Researcher

Rennes, France

Jan. 2018

- image watermarking, deep neural networks for CBIMR, SLU, watermarking, etc.

### INRIA/IRISA Rennes and INSA Rennes

PhD Student

Rennes, France

Oct. 2014 – Sept. 2017

- deep neural architectures for automatic representation learning from multimedia multimodal data

### TU Delft

Visiting PhD Student

Delft, The Netherlands

Sept. 2016 – Dec. 2016

- predicting motion from static images

- INRIA/IRISA** Rennes, France  
 Research Intern May. 2014 – Nov. 2014
- evaluation of local and hierarchical methods for feature democratization
- Končar INEM** Zagreb, Croatia  
 Software Development Intern Jan. 2014 – May. 2014
- working on a mesh sensor network for monitoring and aggregating household utilities
- Lappeenranta University of Technology** Lappeenranta, Finland  
 Software Development Intern Summer 2013
- developing a serious game for mobile devices that aims at improving wellness at the workplace by teaching healthy habits
- Septentrio Satellite Navigation** Leuven, Belgium  
 Software Development Intern Summer 2012
- building system optimization
  - static analysis deployment research
- La Quinta Inn & Suites** Tampa, FL, USA  
 Laundry/Room Attendant Summer 2009
- CCUSA applicant
  - laundry, room cleaning and attending
- Faculty of Maritime Studies** Rijeka, Croatia  
 Undergraduate Assistant – Computing and Electronic Communications 2006 - 2007
- helping students attending the course
  - assisting during lectures and exams
- Faculty of Maritime Studies** Rijeka, Croatia  
 Undergraduate Assistant – Mathematics 2005
- helping students attending the course
  - holding *Wolfram Mathematica* laboratory exercises
- Lošinjska Plovidba** Rijeka, Croatia  
 Deck Cadet/Working 3<sup>rd</sup> Officer 2003 - 2004
- navigation and cargo operations on board a Ro-Ro container vessel connecting European ports

## HONORS & AWARDS

- “*Stanko Turk*” award for the best diploma thesis in the field of the computer science 2014
- Received Mali Lošinj city scholarship 2010
- Received Croatian state scholarship for talented students 2005

## Skills & Interest

**Languages:** Fluent English, Italian and Croatian, basic French

**Interests:** deep learning, multimedia, NLP, computer vision, machine learning, DIY