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## **Dr. Alexandra Branzan-Albu**

Correspondence language: English

### **Contact Information**

The primary information is denoted by (\*)

#### **Address**

Primary Affiliation (\*)

University of Victoria  
Department of Electrical and Computer Engineering  
3800 Finnerty Rd  
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## Dr. Alexandra Branzan-Albu

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### Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes
French	Yes	Yes	Yes	Yes	Yes

### Degrees

- 2003/4 Post-doctorate, Medical Image Analysis, Université Laval
- 2000/6 Doctorate, Electrical Engineering, Polytechnic University of Bucharest
- 1992/9 Bachelor's, Electrical Engineering, Polytechnic University of Bucharest

### User Profile

Research Specialization Keywords: Computer Vision

### Employment

- 2018/7 Professor  
Electrical and Computer Engineering, Engineering, University of Victoria  
Full-time, Professor  
Tenure Status: Tenure
- 2009/7 - 2018/6 Associate Professor  
Electrical and Computer Engineering, Engineering, University of Victoria  
Full-time, Associate Professor  
Tenure Status: Tenure
- 2005/7 - 2009/6 Assistant Professor  
Electrical and Computer Engineering, Engineering, University of Victoria  
Full-time, Assistant Professor  
Tenure Status: Tenure Track
- 2003/5 - 2005/6 Assistant Professor  
Genie électrique et génie informatique, Sciences et génie, Université Laval  
Full-time, Assistant Professor  
Tenure Status: Tenure Track

## Leaves of Absence and Impact on Research

2016/7 - 2017/6      Sabbatical, Ocean Networks Canada  
 My study leave was spent as a Visiting Scientist at Ocean Networks Canada (July 2016-April 2017) and as Visiting Professor at the Center for Image Analysis, University of Uppsala (May-June 2017). During this leave, I worked on a book project approved by Springer and titled 'Computer Vision for Underwater Environmental Monitoring'. I also remained actively involved in the supervision of all my graduate students and research associates, as well as in the management of all my research projects.

## Research Funding History

### Awarded [n=6]

2018/9 - 2021/8 Principal Applicant	<p>Mobile Computer Vision System for Document Image Rendering, Manipulation, and Management on Collaborative E-Writing Devices, Grant</p> <p><b>Funding Sources:</b>          Natural Sciences and Engineering Research Council of Canada (NSERC)          Collaborative Research and Development (CRD)          Total Funding - 175,466          Portion of Funding Received - 175,466          Funding Competitive?: Yes          Quirklogic Inc.          CRD          Total Funding - 87,734          Portion of Funding Received - 59,045          Funding Competitive?: Yes</p>
2020/8 - 2021/7 Principal Applicant	<p>Automatic Visual Analysis of Acoustic Backscatter Time Series for Monitoring Underwater Environments, Grant</p> <p><b>Funding Sources:</b>          ASL Environmental Sciences          Total Funding - 10,000          Portion of Funding Received - 10,000          Funding Competitive?: Yes          Natural Sciences and Engineering Research Council of Canada (NSERC)          Alliance          Total Funding - 20,000          Portion of Funding Received - 20,000          Funding Competitive?: Yes</p>
2020/8 - 2021/2 Principal Applicant	<p>Computer Vision Algorithms for USV mounted Real-Time Marine Vessel Detection Systems, Grant</p> <p><b>Funding Sources:</b>          Open Ocean Robotics          Total Funding - 3,750          Portion of Funding Received - 3,750          Funding Competitive?: Yes          Mathematics of Information Technology and Complex Systems (MITACS)          Accelerate          Total Funding - 11,250          Portion of Funding Received - 11,250          Funding Competitive?: Yes</p>

2019/9 - 2020/2 Principal Applicant	Computer Vision and Machine Learning Algorithms for Detecting Marine Life from Acoustic Backscatter Time Series, Grant
	<p><b>Funding Sources:</b>  ASL Environmental Sciences  Engage Plus  Total Funding - 12,500  Portion of Funding Received - 12,500  Funding Competitive?: Yes  Natural Sciences and Engineering Research Council of Canada (NSERC)  Engage Plus  Total Funding - 12,500  Portion of Funding Received - 12,500  Funding Competitive?: Yes</p>
2019/1 - 2019/7 Principal Applicant	Computer Vision-Based Detection of Fish from Acoustic Backscatter Time Series, Grant
	<p><b>Funding Sources:</b>  Natural Sciences and Engineering Research Council of Canada (NSERC)  Engage  Total Funding - 25,000  Portion of Funding Received - 25,000  Funding Competitive?: Yes</p>
2015/7 - 2019/6 Principal Applicant	Automatic Image Analysis and Generation of Digital Residential Floor Plans, Grant
	<p><b>Funding Sources:</b>  Triumph Electrical Consulting Engineering Ltd  NSERC CRD  Total Funding - 75,001  Portion of Funding Received - 75,001  Funding Competitive?: Yes  Natural Sciences and Engineering Research Council of Canada (NSERC)  NSERC CRD  Total Funding - 149,999  Portion of Funding Received - 149,999  Funding Competitive?: Yes</p>
<b>Completed [n=5]</b>	
2017/5 - 2017/10 Principal Applicant	Computer Vision Methods for Image Rendering and Manipulation on E-Writing Devices, Grant
	<p><b>Funding Sources:</b>  Natural Sciences and Engineering Research Council of Canada (NSERC)  Engage  Total Funding - 25,000  Portion of Funding Received - 25,000  Funding Competitive?: Yes</p>
2016/7 - 2016/12 Principal Applicant	Computer Vision-Based Part Number Recognition for Optimized Off-Logging Processes, Grant
	<p><b>Funding Sources:</b>  Natural Sciences and Engineering Research Council of Canada (NSERC)  Engage  Total Funding - 25,000  Portion of Funding Received - 25,000  Funding Competitive?: Yes</p>

- 2016/2 - 2016/7  
Principal Applicant
- Computer Vision-Based Evaluation of Prosthetic Heart Valves, Grant
- Funding Sources:**  
Natural Sciences and Engineering Research Council of Canada (NSERC)  
Engage  
Total Funding - 25,000  
Portion of Funding Received - 25,000  
Funding Competitive?: Yes
- 2013/8 - 2016/6  
Principal Applicant
- Cloud-Based Secure Virtual On-Line Exam Center (SeVOEC), Grant
- Funding Sources:**  
Natural Sciences and Engineering Research Council of Canada (NSERC)  
NSERC CRD  
Total Funding - 60,000  
Portion of Funding Received - 60,000  
Funding Competitive?: Yes  
Plurilock Inc  
NSERC CRD  
Total Funding - 37,300  
Portion of Funding Received - 37,300  
Funding Competitive?: Yes
- 2014/3 - 2014/8  
Principal Applicant
- Computer Vision-Based Analysis of Digital Architectural Floor Plans, Grant
- Funding Sources:**  
Natural Sciences and Engineering Research Council of Canada (NSERC)  
Engage  
Total Funding - 25,000  
Portion of Funding Received - 25,000  
Funding Competitive?: Yes
- Under Review [n=1]**
- 2021/1 - 2021/12  
Principal Applicant
- Computer Vision-based Detection of Marine Vessels in the Canadian Arctic using Visual and Acoustic Data, Grant
- Funding Sources:**  
Natural Sciences and Engineering Research Council of Canada (NSERC)  
Alliance  
Total Funding - 20,000  
Portion of Funding Received - 0  
Funding Competitive?: Yes  
Environment Climate Change Canada  
Total Funding - 10,000  
Portion of Funding Received - 0  
Funding Competitive?: Yes

## Student/Postdoctoral Supervision

### Bachelor's [n=10]

2020/5 - 2020/8 Principal Supervisor	McIntosh, Declan (In Progress) , University of Victoria Student Degree Expected Date: 2021/8 Thesis/Project Title: Tracking sablefish in underwater deep sea video Present Position: undergraduate student, University of Victoria
2020/1 - 2020/4 Principal Supervisor	Johnson, Jordan (Completed) , University of Victoria Thesis/Project Title: Graphical User Interaction for Collaborative Displays Present Position: Survey CAD Technologist, CFB Esquimault
2019/5 - 2019/8 Principal Supervisor	Johnson, Jordan (Completed) , University of Victoria Thesis/Project Title: Room Segmentation in Multi-Unit Architectural Plans (NSERC USRA project) Present Position: Survey CAD Technologist, CFB Esquimault
2019/5 - 2019/8 Principal Supervisor	Lee, Tabitha (Completed) , University of Victoria Thesis/Project Title: Detection of Fish Behaviour from Underwater Videos (NSERC USRA project) Present Position: unknown, unknown
2019/5 - 2019/8 Principal Supervisor	Newton, Joshua (In Progress) , University of Victoria Student Degree Expected Date: 2020/8 Thesis/Project Title: Bird Counting for Environmental Monitoring (NSERC USRA project) Present Position: Undergraduate Student, Engineering, UVic
2016/5 - 2018/8 Principal Supervisor	Burden, Alexander (Completed) , University of Victoria Thesis/Project Title: User Interfaces for Ground Truth Generation on Document Images Present Position: Research Engineer, UBC
2015/5 - 2015/8 Principal Supervisor	Dash, Amanda (Completed) , University of Victoria Thesis/Project Title: Human Behaviour Analysis in Multi-Person Conversations (NSERC USRA project) Present Position: Graduate Student, University of Victoria
2014/5 - 2014/8 Principal Supervisor	Wang, Nancy (Completed) , University of British Columbia (UBC) Thesis/Project Title: Analysis of Changes in Fish behaviour in Response to Environmental Changes (NSERC USRA project) Present Position: Graduate Student, University of Washington
2014/5 - 2014/8 Principal Supervisor	Mendes da Silva, Andre (Completed) , Pontificia Univ. Catolica do Parana, Curitiba, Brazil Thesis/Project Title: Automatic Detection of Sea Stars from Underwater Images (MITACS GLOBALINK project) Present Position: Graduate Student, New York University
2014/1 - 2014/4 Principal Supervisor	Fier, Ryan (Completed) , University of Victoria Thesis/Project Title: Automatic Fish Counting System for Noisy Deep-Sea Videos (NSERC USRA project) Present Position: unknown

### Master's Thesis [n=9]

2021/1 - 2023/12 Principal Supervisor	Vohra, Rhythm (In Progress) , University of Victoria Thesis/Project Title: Computer Vision fro Environmental Monitoring Present Position: MASc student, University of Victoria
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- 2020/1 - 2021/12  
Co-Supervisor  
Bedard, Erik (In Progress) , University of Victoria  
Student Degree Expected Date: 2021/12  
Thesis/Project Title: Image-based Modelling Methods for the Design of Personalized Medical Devices  
Present Position: Master's Student, University of Victoria
- 2019/9 - 2021/8  
Co-Supervisor  
Slonimer, Alexander (In Progress) , University of Victoria  
Student Degree Expected Date: 2021/8  
Thesis/Project Title: Deep Learning Methods for Acoustic Data  
Present Position: Graduate Student, University of Victoria
- 2017/12 - 2019/4  
Principal Supervisor  
Al-Hammuri, Khalid (Completed) , University of Victoria  
Thesis/Project Title: Automatic Analysis of Ultrasound Videos for Linguistic Applications  
Present Position: unkown
- 2016/9 - 2020/12  
Principal Supervisor  
Umeki, Atsuko (In Progress) , University of Victoria  
Student Degree Expected Date: 2020/12  
Thesis/Project Title: Predictive Analysis using Deep Learning Techniques  
Present Position: Graduate Student, University of Victoria
- 2016/5 - 2018/9  
Principal Supervisor  
Cabrera, Dany (Completed) , University of Victoria  
Thesis/Project Title: Wall and Room Segmentation from Residential Floor Plans  
Present Position: unknown
- 2014/9 - 2016/8  
Principal Supervisor  
Sadhu, Tanmana (Completed) , University of Victoria  
Thesis/Project Title: Computer Vision-Based Obstacle Detection for Sail Boats  
Present Position: Computer Vision Resaerch Engineer, Huawei Canada
- 2012/9 - 2015/8  
Co-Supervisor  
Mehrnejad, Marzieh (Completed) , University of Victoria  
Thesis/Project Title: Towards Robust Identification of Slow Moving Animals in Deep-Sea Imagery  
Present Position: Senior Full-Stack Software Engineer, Pacific Intelligent Automation Consulting
- 2011/9 - 2014/8  
Principal Supervisor  
Agahchen, Anissa (Completed) , University of Victoria  
Thesis/Project Title: Computational Models for the Aesthetic Analysis of Documents  
Present Position: Full-Stack Developer, Akimi Labs Ltd

**Doctorate [n=7]**

- 2017/9 - 2021/8  
Principal Supervisor  
Porto Marques, Tunai (In Progress) , University of Victoria  
Student Degree Expected Date: 2021/8  
Thesis/Project Title: Automatic Analysis of Underwater Imagery  
Present Position: Graduate Student, University of Victoria
- 2016/1 - 2020/12  
Principal Supervisor  
Rezvanifar, Alireza (In Progress) , University of Victoria  
Student Degree Expected Date: 2020/12  
Thesis/Project Title: Symbol Spotting in Architectural Plans  
Present Position: Graduate Student, University of Victoria
- 2016/1 - 2020/12  
Principal Supervisor  
Alizadeh, Maryam (In Progress) , University of Victoria  
Student Degree Expected Date: 2020/12  
Thesis/Project Title: Deformable Motion Analysis of Synthetic Heart Valves  
Present Position: Graduate Student, University of Victoria
- 2015/9 - 2020/12  
Principal Supervisor  
Dash, Amanda (In Progress) , University of Victoria  
Student Degree Expected Date: 2020/12  
Thesis/Project Title: Scene Text Recognition  
Present Position: Graduate Student, University of Victoria

- 2011/9 - 2016/8  
Co-Supervisor  
Moria, Kawthar (Completed) , University of Victoria  
Thesis/Project Title: Computer Vision-Based Detection of Arson and Violent Actions Performed by Individuals in Videos Acquired with Handheld Devices  
Present Position: Assistant Professor and ECE Chair, King Abdulaziz University, Saudi Arabia
- 2010/9 - 2018/12  
Principal Supervisor  
Beugeling, Trevor (Withdrawn) , University of Victoria  
Thesis/Project Title: Computer Vision Algorithms for Species Identification  
Present Position: Faculty Member, College of the Rockies
- 2009/9 - 2015/12  
Principal Supervisor  
Svendsen, Jeremy (Completed) , University of Victoria  
Thesis/Project Title: Chart Detection and Recognition in Graphics Intensive Business Documents  
Present Position: Computer Vision Specialist, LMI Technologies, Vancouver

**Post-doctorate [n=2]**

- 2012/7 - 2015/6  
Principal Supervisor  
Cote, Melissa (Completed) , University of Victoria  
Thesis/Project Title: Computer Vision-Based Analysis of Business Documents  
Present Position: Research Associate, University of Victoria
- 2012/6 - 2015/6  
Co-Supervisor  
Jean, Frederic (Completed) , University of Victoria  
Thesis/Project Title: Change Detection in Mountain Landscape Images  
Present Position: Computer Vision Specialist at Centre de Robotique et de Vision Industrielles (CRVI)

**Research Associate [n=1]**

- 2015/7 - 2021/8  
Principal Supervisor  
Cote, Melissa, University of Victoria  
Thesis/Project Title: Document Image Management and Querying with Computer Vision Techniques  
Present Position: Research Associate, University of Victoria

**Event Administration**

- 2019/9 - 2021/2  
Co-organizer, 4th ICPR Workshop on Computer Vision for Analysis of Underwater Imagery (CVAUI), online due to COVID., Workshop, 2021/1 - 2021/1
- 2018/1 - 2018/10  
Co-organizer, 3rd ICPR Workshop on Computer Vision for Analysis of Underwater Imagery (CVAUI), Beijing, China, Workshop, 2018/8 - 2018/8
- 2016/3 - 2017/1  
Co-organizer, 2nd ICPR Workshop on Computer Vision for Analysis of Underwater Imagery (CVAUI), Cancun, Mexico, Workshop, 2016/12 - 2016/12
- 2015/3 - 2015/8  
Publication Chair, IEEE Pacific Rim Conference on Communications, Computers and Signal Processing (PACRIM 2015), Conference, 2015/7 - 2015/7
- 2013/9 - 2014/12  
Co-organizer, 1st ICPR Workshop on Computer Vision for Analysis of Underwater Imagery (CVAUI), Stockholm, Sweden, Workshop, 2014/8 - 2014/8



## Organizational Review Activities

- 2018/11 - 2018/11 CEAB Visitor for accreditation of Electrical Engineering program, University of British Columbia  
I was a member of the Visiting Team for CEAB accreditation of the Electrical Engineering Program at University of UBC - Okanagan. I performed a quantitative and qualitative evaluation of the curriculum, as well as a qualitative evaluation of the program environment. I also participated in writing the final evaluation report.
- 2012/11 - 2015/10 CEAB Visitor for accreditation of Computer Engineering program, The University of Manitoba  
I was a member of the Visiting Team for CEAB accreditation of Engineering Programs at the University of Manitoba. My responsibility was the Computer Engineering Program. I performed a quantitative and qualitative evaluation of the curriculum, as well as a qualitative evaluation of the program environment. I also participated in writing the final evaluation report.
- 2014/10 - 2014/10 CEAB Visitor for accreditation of Electrical Engineering program, Université du Québec à Trois-Rivières  
I was a member of the Visiting Team for CEAB accreditation of the Electrical Engineering Program at University of Quebec-Trois Rivières. I performed a quantitative and qualitative evaluation of the curriculum, as well as a qualitative evaluation of the program environment. I also participated in writing the final evaluation report.

## International Collaboration Activities

- 2013/5 - 2019/1 Member of the NOAA Strategic Initiative on Automated Image Analysis, United States  
The Automated Image Analysis Strategic Initiative team is a US-Canada collaboration involving academic and US governmental members (NOAA-National Oceanic and Atmospheric Administration). As an invited member with regular status, I participated in the development of guidelines and criteria for funding projects to develop broad-scale, standardized automated analysis of still and video imagery for use in fish stock assessment.
- 2017/5 - 2017/6 Visiting Professor, Sweden  
During May and June 2017, I have visited the Center for Image Analysis led by Prof. Nystrom at the University of Uppsala, Sweden. My visit was financially supported by the Center for Image Analysis in Uppsala.
- 2016/7 - 2017/4 Visiting Scientist, Canada  
From July 2016 to April 2017, I have been a visiting scientist at Ocean Networks Canada. This position allowed me to focus on research activities related to underwater image analysis. This position has been funded by Ocean Networks Canada.

## Committee Memberships

- 2015/9 Committee Member, Ocean Observatory Council, Ocean Networks Canada  
As a member of the Ocean Observatory Council, I provide advice to Ocean Networks Canada (ONC) management related to ONC's 5-Year Science Plan and ONC operations based on input from the international computer science community using ONC data.

- 2019/12 - 2020/3 Committee Member, Comité multidisciplinaire E - FQRNT, Fonds de recherche du Québec - Nature et technologies (FRQNT)  
Participated in the review and funding decisions for applications for the FQRNT program "Projet de recherche en équipe du Fonds Recherche Québec- Nature et technologies (FRQNT)".
- 2019/9 - 2020/2 Committee Member, NSERC Chairs for Women in Science and Engineering Program, Natural Sciences and Engineering Research Council of Canada (NSERC)  
Participated in the review and selection of application for the NSERC Chair for Women in Science and Engineering for Ontario and the Prairies. Participated in the interview process.
- 2017/12 - 2018/3 Committee Member, Comité multidisciplinaire E - FQRNT, Fonds de recherche du Québec - Nature et technologies (FRQNT)  
Participated in the review and funding decisions for applications for the FQRNT program "Projet de recherche en équipe du Fonds Recherche Québec- Nature et technologies (FRQNT)".
- 2014/9 - 2017/8 Committee Member, Senate of the University of Victoria, University of Victoria  
I was an elected member on the Senate of the University of Victoria.
- 2013/7 - 2016/6 Committee Member, ECE Departmental Committee on Strategic Planning, University of Victoria  
As elected member of the ECE Strategic Planning Committee, I participated in the development and update of the strategic plan of our department.
- 2013/10 - 2014/4 Committee Member, Search Committee for VP Research at the University of Victoria, University of Victoria  
I participated in the university-wide VP Research search committee as an elected representative of the Faculty of Engineering.

## Other Memberships

- 2021/1 Special Advisor to the Dean of Engineering on Equity, Diversity and Inclusion, University of Victoria
- 2018/4 30 by 30 Champion (Engineers Canada Initiative), Faculty of Engineering, Engineers Canada  
I represent the Faculty of Engineering at UVic on the Canada-wide 30 by 30 Champions network, whose mandate is to strategize and establish best practices for increasing the representation of women within engineering.
- 2020/1 - 2022/12 Chair, IEEE Women in Engineering (WIE) Affinity Group
- 2018/7 - 2022/6 Graduate Advisor. Electrical and Computer Engineering, University of Victoria  
Since July 2018, I have been serving as the Graduate Advisor for Graduate Programs (MAsc, MEng, and PhD) offered by the Department of Electrical and Computer Engineering at the University of Victoria.
- 2014/8 - 2021/1 Member of the IAPR Executive Committee, International Association for Pattern Recognition  
The International Association for Pattern Recognition (IAPR) is an international association of non-profit, scientific or professional organizations (being national, multi-national, or international in scope) concerned with pattern recognition, computer vision, and image processing in a broad sense. As a member of the executive committee, I participate in the governance of this multinational society. I was the Secretary of IAPR between 2014 and 2018. I am currently the 1st Vice-President of the IAPR, from 2018 to 2021. Both positions are elected by Governing Board Vote following a nomination process.

- 2017/1 - 2019/12      Chair, IEEE Victoria Section  
Under my leadership, our section received the IEEE Canada Exemplary Section Award in 2018.
- 2016/1 - 2016/12      Student Branch Counsellor, IEEE Victoria Section
- 2011/7 - 2016/6      Graduate Advisor, Individual Interdisciplinary Graduate Programs (INTD), University of Victoria  
As Graduate Advisor of the Individual Interdisciplinary Graduate Programs, I worked with all departments and schools at UVic who host interdisciplinary graduate students. The INTD program is one of the largest graduate programs at UVic, with 80 graduate students currently enrolled in it. I also chaired the university-wide Interdisciplinary Program Committee, which oversees the admissions to the INTD program and makes decisions about funding competitions and awards.

## Presentations

1. (2019). Computer Vision for Underwater Environmental Monitoring. Seminar Series Hosted by Monterey Bay Aquarium Research Institute (MBARI), Monterey Bay, United States  
Main Audience: Knowledge User  
Invited?: Yes, Keynote?: No
2. (2019). Computer Vision-Based Assessment of Prosthetics Heart Valves. Biomedical Imaging and Artificial Intelligence Digital Cluster, University of British Columbia, Vancouver, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
3. (2019). Computer Vision-Based Detection of Schools of Herring from Acoustic Backscatter Time Series. PICES 2019 Annual Meeting W15: Application of machine learning to ecosystem change issues in the North Pacific, Victoria, Canada  
Main Audience: Researcher  
Invited?: No, Keynote?: No
4. (2017). Computer Vision-Based Analysis of Prosthetics Heart Valves. Invited Talk, University of Uppsala, Uppsala, Sweden  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
5. (2017). Advancing Academic Women in Science and Engineering. Invited Talk, University of Uppsala, Uppsala, Sweden  
Main Audience: Researcher  
Invited?: Yes, Keynote?: Yes
6. (2016). Tutorial on State of the Art in Automated Analysis of Underwater Imagery (in collaboration with M. Hoeberechts). IEEE Oceans, Monterey, United States  
Main Audience: Knowledge User  
Invited?: No, Keynote?: No
7. (2016). Computer Vision for Environmental Monitoring. Canadian Conference for Computer and Robot Vision (CRV), Victoria, Canada  
Main Audience: Researcher  
Invited?: Yes, Keynote?: No
8. (2015). Image Analysis for Environmental Monitoring (in collaboration with M. Hoeberechts). Discover UVic (outreach activity for high school students and their parents), Victoria, Canada  
Main Audience: General Public  
Invited?: Yes, Keynote?: Yes

9. (2015). Visualising Category-Specific Changes in Oblique Photographs of Mountain Landscapes. Workshop on Visualisation in Environmental Sciences, Cagliari, Italy  
Main Audience: Researcher  
Invited?: No, Keynote?: No

## Publications

### Journal Articles

1. Rezvanifar A\*, Cote M\*, Branzan-Albu A. (2020). Geometry-based Symbol Spotting in Born-Digital Architectural Floor Plans. *Visual Computer*.  
Submitted  
Refereed?: Yes, Open Access?: No
2. Alizadeh M\*, Cote M\*, Branzan-Albu A. (2020). Automatic Segmentation and Tracking of Biological Prosthetic Heart Valves. *SPIE Journal of Medical Imaging*.  
Accepted  
Refereed?: Yes
3. Porto-Marques T\*, Branzan-Albu A, Hoeberechts M. (2019). A Contrast-Guided Approach for the Enhancement of Low-Lighting Underwater Images. *MDPI Journal of Imaging*. 5(10)  
Published  
Refereed?: Yes, Open Access?: Yes
4. Rezvanifar A\*, Cote M\*, Branzan Albu A. (2019). Symbol Spotting for Architectural Drawings: State of the Art and New Industry-Driven Developments. *IPSA Transactions on Computer Vision and Applications*. 11(2)  
Published  
Refereed?: Yes, Open Access?: Yes
5. Cote M\*, Branzan Albu A. (2018). Teaching Socio-Cultural Impacts of Technology in Advanced Technical Courses: a Case Study. *European Journal of Engineering Education*. 44(5): 688-701.  
Published  
Refereed?: Yes, Open Access?: No
6. Matabos M., Hoeberechts M., Doya C., Aguzzi J., Nephin J., Reimchen T.E., Leaver S., Marx R.M., Branzan Albu A, Fier R\*, et al. (2017). Expert, Crowd, Students, or Algorithm: Who Holds the Key to Deep-Sea Imagery 'Big Data' Processing?. *Methods in Ecology and Evolution*. 8(8): 996-1004.  
Published  
Refereed?: Yes, Open Access?: No
7. Agahchen A\*, Branzan-Albu A. (2016). Chromatic Modulation in Visual Art: a Computational Perspective. *Journal of Electronic Imaging*.  
Published  
Refereed?: Yes, Open Access?: No
8. Cote M\*, Branzan Albu A. (2015). Robust Texture Classification by Aggregating Pixel-Based LBP Statistics. *IEEE Signal Processing Letters*. 22(11): 2102-2106.  
Published  
Refereed?: Yes, Open Access?: No

## Conference Publications

1. Cote M\*, Rezvanifar A\*, Branzan-Albu A. (2020). Automatic Generation of Electrical Plan Documents from Architectural Data. ACM Symposium on Document Engineering (DocEng 2020), Conference Date: 2020/9  
Paper  
Published  
Refereed?: Yes, Invited?: No
2. Rezvanifar, A\*, Cote, M\*, Branzan-Albu, A. (2020). Symbol Spotting on Digital Architectural Floor Plans Using a Deep Learning-Based Framework. IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW 2020), virtual, Conference Date: 2020/6  
Paper  
Published  
Refereed?: Yes, Invited?: No
3. Porto-Marques T\*, Branzan-Albu A. (2020). L2UWE: A Framework for the Efficient Enhancement of Low-Light Underwater Images Using Local Contrast and Multi-Scale Fusion. IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW 2020), Conference Date: 2020/6  
Paper  
Published  
Refereed?: Yes, Invited?: No
4. Cote M\*, Branzan-Albu A. (2020). Towards Preserving the Ephemeral: Texture-Based Background Modelling for Capturing Back-of-the-Napkin Notes. Winter Conference on Applications of Computer Vision (WACV 2020), Snowmass Village, United States  
Conference Date: 2020/3  
Paper  
Published  
Refereed?: Yes, Invited?: No
5. Porto-Marques T\*, Rezvanifar, A\*, Cote, M\*, Branzan-Albu, A et al. (2019). A Deep Learning-based Framework for the Detection of Schools of Herring in Echograms. NeurIPS Workshops (Tackling Climate Change with Machine Learning), Vancouver, Canada  
Conference Date: 2019/12  
Paper  
Published  
Refereed?: Yes, Invited?: No
6. Burden A\*, Cote M\*, Branzan-Albu A. (2019). Rectification of Camera-Captured Document Images with Mixed Contents and Varied Layouts. IEEE Canadian Conference on Computer and Robot Vision (CRV 2019), Kingston, Canada  
Conference Date: 2019/5  
Paper  
Published  
Refereed?: Yes, Invited?: No
7. Porto-Marques T\*, Branzan-Albu A, Hoeberechts M. (2018). Enhancement of Low-Lighting Underwater Images Using Dark Channel Prior and Fast Guided Filters. ICPR Workshops (Computer Vision for Analysis of Underwater Imagery), CVAUI 2018, Beijing, China  
Conference Date: 2018/8  
Paper  
Published  
Refereed?: Yes, Invited?: No

8. Prior R, Capson D, Branzan-Albu A. (2017). Real Time Continuous Tracking of Dynamic Hand Gestures on a Mobile GPU. Advanced Concepts for Intelligent Vision Systems (ACIVS 2017), Antwerpen, Belgium  
Conference Date: 2017/9  
Paper  
Published  
Refereed?: Yes, Invited?: No
9. Dash A\*, Branzan-Albu A. (2017). A Domain Independent Approach to Video Summarization. Advanced Concepts for Intelligent Vision Systems (ACIVS 2017), Antwerpen, Belgium  
Conference Date: 2017/9  
Paper  
Published  
Refereed?: Yes, Invited?: No
10. Dash A\*, Branzan-Albu A. (2017). Counting Large Flocks of Birds using Videos Acquired with Hand-held Devices. Advanced Concepts for Intelligent Vision Systems (ACIVS 2017), Antwerpen, Belgium  
Conference Date: 2017/9  
Paper  
Published  
Refereed?: Yes, Invited?: No
11. Cote M\*, Branzan-Albu A. (2017). Teaching Computer Vision and Its Societal Effects: A Look at Privacy and Security Issues From the Students' Perspective. Computer Vision and Pattern Recognition (CVPR 2017) Workshops, Honolulu, United States  
Conference Date: 2017/7  
Paper  
Published  
Refereed?: Yes, Invited?: No
12. Alizadeh M\*, Cote M\*, Branzan-Albu A. (2017). Leaflet-Free Edge Detection for the Automatic Analysis of Prosthetic Heart Valve Opening and Closing Motion Patterns from High Speed Video Recordings. Scandinavian Conference on Image Analysis (SCIA 2017), Norway  
Conference Date: 2017/6  
Paper  
Published  
Refereed?: Yes, Invited?: No
13. Burden A\*, Cote M\*, Branzan-Albu A. (2017). Fast and Accurate Tracking of Highly Deformable Heart Valves with Locally Constrained Level Sets. Canadian Conference on Computer and Robot Vision (CRV 2017), Edmonton, Canada  
Conference Date: 2017/5  
Paper  
Published  
Refereed?: Yes, Invited?: No
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