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Education

- **Delft University of Technology** Delft, NL
PhD Computer Science, field - Multimedia Information Retrieval 2008 - 2013
- **Faculty of Electrical Engineering, University of Belgrade** Belgrade, SRB
Graduate Engineer of Electrical Engineering 2001 - 2006
- **Military Technical Academy** Belgrade, SRB
Air Technical Service - Electronic Engineering 2000 - 2001
- **Military Grammar School** Belgrade, SRB
Gymnasium - secondary school 1996 - 2000

Work Experience

- **University of Amsterdam, Amsterdam Business School** Amsterdam, NL
Associate Professor 2019 - present
- **University of Amsterdam, Informatics Institute** Amsterdam, NL
Guest Researcher 2017 - present
- **University of Amsterdam, Amsterdam Business School** Amsterdam, NL
Assistant Professor 2017 - 2019
- **University of Amsterdam, Informatics Institute** Amsterdam, NL
Postdoctoral Researcher 2013 - 2017
- **Netherlands Forensic Institute** Den Haag, NL
Forensic Scientist 2012 - 2013
- **Delft University of Technology** Delft, NL
PhD Researcher 2008 - 2012
- **Eindhoven University of Technology** Eindhoven, NL
PhD Researcher 2007 - 2008
- **ICEF, Faculty of Electrical Engineering, University of Belgrade** Belgrade, SRB
Research Assistant 2006 - 2007

Recent Teaching Experience

- **Lecturer and coordinator: MBA Big Data course Deep Learning** UvA
Topic: Introduction to deep learning 2021 - scheduled
- **Lecturer and coordinator: MBA Big Data course Machine Learning** UvA
Topic: Introduction to machine learning in Python 2018 - present
- **Lecturer and coordinator: Minor DS course Machine Learning** UvA
Topic: Introduction to machine learning in Python 2017 - present
- **Lecturer and coordinator: Minor DS course Data Structures and Algorithms** UvA
Topic: Common algorithms, algorithmic paradigms, and data structures 2017 - present
- **Lecturer: BSc Information Studies course Information Visualisation (Dutch)** UvA
Topic: Principles and techniques of information visualization 2014 - 2017
- **Lecturer: MSc Information Studies course Fundamentals of Data Science** UvA
Topic: Hands on experience in data gathering, analysis and visualisation 2016, 2018 - present

- **Lecturer: Lean Six Sigma Master Black Belt Masterclass on Machine Learning** UvA
Topic: "A tour through the machine learning zoo" 2018 - present
- **Guest lecturer: BSc IS course Onderzoek van Interactieve Systemen (Dutch)** UvA
Topic: Semantic multimedia analysis for researching violent online political extremism 2018 - present
- **Guest lecturer: MSc Information Studies course Intelligent Interactive Systems** UvA
Topic: Multimedia analytics applications in urban computing 2014 - present

Supervision of PhD and MSc Students

- **Tipping points in categorization and canonization in the art market** ABS, UvA
PhD Student (with M. Kackovic, N. Wijnberg and M. Worring): Thanos Efthymiou 2020 - present
- **AI and Marketing: Optimal Store Placement, Popularity and Design** ABS, UvA
PhD Student (with Prof.dr. Willemijn van Dolen): Ujjwal Sharma 2018 - present
- **Improving Response to Citizen Reports Using Artificial Intelligence** ABS, UvA
PhD Student (with Prof.dr. Marcel Worring): Maarten Sukel 2018 - present
- **Multimedia Analytics for Urban Computing** IvI, UvA
PhD Student (with Prof.dr. Marcel Worring): Inske Groenen 2018 - present
- **Multimedia Analytics for Forensics** IvI, UvA
PhD Student (with Prof.dr. Marcel Worring): Devanshu Arya 2017 - present
- **The Machine in Multimedia Analytics** IvI, UvA
PhD Student (with Prof.dr. Marcel Worring): Jan Zahálka completed 2017
- **Supervisor of ±35 MSc students** UvA
Topics: multimedia, computer vision, information retrieval, machine learning 2013 - present

Outreach: Recent Public Talks, Seminars and Interviews

- **Panellist in a Panel Discussion: Multimedia, not Single Media...** Dublin, IE
International Conference on Content-Based Multimedia Indexing, CBMI 2019 2019
- **Keynote: Multimedia Analytics for Business** Kiev, UA
Data Science UA - 7th Conference on Machine Learning, Artificial Intelligence and Data Science 2019
- **Interview: In gesprek met de stad. Booklet "De Universiteit en Amsterdam"** Amsterdam, NL
Article published on the occasion of the opening of the academic year 2018
- **Talk: Multimedia Analytics for Urban Computing** Amsterdam, NL
ADS Meetup "Coffee & Data: Urban Analytics" 2018
- **Talk: Data Science in Service of City Liveability** Amsterdam, NL
ADS Meetup "Smart Cities & Smart Health in Amsterdam & Beijing" 2018
- **Keynote: "Good marketing" use-case applications through open data and social multimedia.** Amsterdam, NL
Innovators Tribe: AI & Multimodal Data, Startup Village, Science Park 2018
- **Member "Klankbordgroep Drukteradar van de Gemeente Amsterdam"** Amsterdam, NL
An expert group formed to help city administrators reduce the crowd in Amsterdam 2018 - present
- **Member "Klankbordgroep voorspelmodel balans in de stad van de Gemeente Amsterdam,"** Amsterdam, NL
An expert group advising city administrators on predictive analysis tools 2017 - 2018
- **Jury member of the "Entrepreneurship in Data Science" programme** Amsterdam, NL
ACE & ADS programme for MSc & PhD Students, Startup Village, Science Park 2018
- **User-Generated Content in Social Media** Saarbrücken, DE
Invited to participate in the prestigious Schloss Dagstuhl Seminar 2017
- **Keynote: Understanding Violent Online Political Extremism**
- **Using Multimedia Analytics** Arnhem, NL
Themadagen digitale opsporing, a major national digital forensics event 2016

- Human Reasoning Meets Machine Learning: Hands-on Workshop**

 - **Using Mixed-Media Analytics Tools on Violent Online Extremism Data** Dublin, IE
VOX-Pol Mid-Project Conference 2016
- Semantic Multimedia Analysis for Researching Violent Online**

 - **Political Extremism Content** Den Haag, NL
Workshop at the Security Research & Innovation Event 2016
 - Talk: Multimedia Analytics Tools for Research in Violent Online**
 - **Political Extremism** Amsterdam, NL
ADS Meetup "Coffee & Data: Forensic Intelligence meets Data Science" 2016
 - **Talk: Using Social Multimedia for Urban Computing** Amsterdam, NL
Amsterdam Data Science Meetup "Coffee & Data #2" 2015

Research Grants

- **Co-recipient of a UvA/FEB research grant** UvA
Topic: Tipping points in categorization and canonization in the art market 2019 - present

 - Partners: Sotheby's (New York), Rijksmuseum, Stedelijk Museum Amsterdam, and the Netherlands Institute for Sound and Vision
 - Co-applicants: dr. M. Kackovic, Prof.dr. N. Wijnberg and Prof.dr. M. Worring
 - Funding: PhD Student
- **Recipient of an NVIDIA Data Science GPU Grant** UvA
Topic: Multimedia Analytics for Urban Computing 2019 - present

 - Funding: Refurbished NVIDIA Titan V GPU
- **Co-recipient of Amsterdam Business School research grant** UvA
Topic: Artificial Intelligence and Marketing 2018 - present

 - Partners: Starbucks
 - Co-applicants: Prof.dr. Willemijn van Dolen
 - Funding: PhD Student
- **Co-recipient of a research grant from the City of Amsterdam** UvA
Topic: Improving Response to Citizen Reports Using Artificial Intelligence 2018 - present

 - Partners: Chief Technology Office and DataLab, City of Amsterdam
 - Co-applicants: Prof.dr. Marcel Worring
 - Funding: PhD Student, two days per week
- **Co-recipient of a research grant within EU Interreg SCORE project** UvA
Topic: Smart Cities + Open Data Re-use (SCORE) 2017 - present

 - Partners: Nine cities from the EU North Sea Region
 - Co-applicants: Prof.dr. Marcel Worring
 - Funding: PhD Student
- **Co-recipient of Amsterdam Data Science research grant** UvA
Topic: Measuring and Improving City Livability 2016 - 2017

 - Partners: Amsterdam University of Applied Sciences
 - Funding: Two Research Assistants
- **Co-recipient of Amsterdam Data Science research grant** UvA
Topic: CROWDEO - Human-Machine Video Summarization 2015 - 2016

 - Partners: VU Amsterdam
 - Funding: Research Assistant

Academic Service

- Technical Program Chair of the 29th Int. Conference on MultiMedia Modeling, MMM 2023, Bergen, Norway
- Co-organizer of special session on Multimedia Information Retrieval for Urban Data. In 10th International Conference on Multimedia Retrieval, ACM ICMR 2020, Dublin, Ireland.
- Associate Editor/Area Chair of the 25th Int. Conference on Pattern Recognition, ICPR 2020, Milan, Italy
- Program Chair of the 2019 International Conference on Content-Based Multimedia Indexing, Dublin, Ireland
- Lead Guest Editor of Multimedia Tools and Applications (MTAP) journal upcoming Special Issue “Content-Based Multimedia Indexing in the Era of Artificial Intelligence: Special Issue of CBMI 2019”
- Co-organizer of special session on Multimedia Analytics: Perspectives, Techniques and Applications (MAPTA). In:
 - 24th Int. Conf. on Multimedia Modeling (MMM '18), February 5-7, 2018, Bangkok, Thailand
 - 25th Int. Conf. on Multimedia Modeling (MMM '19), January 8-11, 2019, Thessaloniki, Greece
 - 26th Int. Conf. on Multimedia Modeling (MMM '20), January 5-8, 2020, Daejeon, Korea
 - 27th Int. Conf. on Multimedia Modeling (MMM '21), January 25-27, 2021, Prague, Czech Republic
- Remote expert Evaluator for the European Commission’s Horizon 2020 FET-Open RIA 2018-2019 calls
- Member of the VOX-Pol Network of Excellence (NoE), a European Union Framework Programme 7 (FP7)-funded academic research network focused on researching the prevalence, contours, functions, and impacts of Violent Online Political Extremism and responses to it, www.voxpol.eu, 2015-2018.
- Member of the organizing committee of ACM Multimedia 2016, Amsterdam, The Netherlands
- Co-organiser of CrowdMM 2015 Workshop at ACM Multimedia 2015, Brisbane, Australia
- Organizing committee of S3MR '11, 2nd Summer School on Social Media Retrieval, Antalya, Turkey
- Organizing committee of S3MR '10, 1st Spring School on Social Media Retrieval, Interlaken, Switzerland
- Served as reviewer/programme committee member for a number of international journals and conferences in multimedia and information retrieval fields, such as:
 - JOURNALS: IEEE Transactions on Multimedia (IEEE TMM) | ACM Transactions on Multimedia Computing, Communications, and Applications (ACM TOMM) | IEEE MultiMedia Magazine (IEEE MM) | ACM Transactions on Information Systems (ACM TOIS) | IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG) | Information Retrieval Journal | Information Processing & Management
 - CONFERENCES: ACM International Conference on Multimedia (ACM MM) | ACM International Conference on Multimedia Retrieval (ACM ICMR) | IEEE International Conference on Multimedia and Expo (IEEE ICME) | ACM International Conference on Information and Knowledge Management (ACM CIKM).

Honors and Awards

- Lecturer of the Year at the University of Amsterdam Business School
- Machine Learning Course in the MBA Big Data & Business Analytics 2019
- Grand Challenge 1st Prize at ACM Multimedia 2014 Conference
- with Jan Zahálka and Marcel Worrying 2014
- Outstanding Reviewer Award at the Pacific-Rim Conference on Multimedia 2014
- Graduated as first in class from the Military Grammar School in Belgrade 2000

Publications (Since 2010)

- [1] Maarten Sukel, Stevan Rudinac, and Marcel Worrying. Urban object detection kit: A system for collection and analysis of street-level imagery. In *Proceedings of the 2020 International Conference on Multimedia Retrieval*, ICMR '20, page 509–516, New York, NY, USA, 2020. Association for Computing Machinery.
- [2] Omar Shahbaz Khan, Mathias Dybkjær Larsen, Liam Alex Sonto Poulsen, Björn Þór Jónsson, Jan Zahálka, Stevan Rudinac, Dennis Koelma, and Marcel Worrying. Exquisitor at the lifelog search challenge 2020. In *Proceedings of the*

Third Annual Workshop on Lifelog Search Challenge, LSC '20, page 19–22, New York, NY, USA, 2020. Association for Computing Machinery.

- [3] Ujjwal Sharma, Stevan Rudinac, Marcel Worring, Joris Demmers, and Willemijn van Dolen. Semantic path-based learning for review volume prediction. *Advances in Information Retrieval: 42nd European Conference on IR Research, ECIR 2020, Lisbon, Portugal, April 14–17, 2020*.
- [4] Omar Shahbaz Khan, Björn Þór Jónsson, Stevan Rudinac, Jan Zahálka, Hanna Ragnarsdóttir, Þórhildur Þorleiksdóttir, Gylfi Þór Guðmundsson, Laurent Amsaleg, and Marcel Worring. Interactive learning for multimedia at large. *Advances in Information Retrieval: 42nd European Conference on IR Research, ECIR 2020, Lisbon, Portugal, April 14–17, 2020*.
- [5] Iva Gornishka, Stevan Rudinac, and Marcel Worring. Interactive search and exploration in discussion forums using multimodal embeddings. In Wen-Huang Cheng, Junmo Kim, Wei-Ta Chu, Peng Cui, Jung-Woo Choi, Min-Chun Hu, and Wesley De Neve, editors, *MultiMedia Modeling*, pages 388–399, Cham, 2020. Springer International Publishing.
- [6] Björn Þór Jónsson, Omar Shahbaz Khan, Dennis C. Koelma, Stevan Rudinac, Marcel Worring, and Jan Zahálka. Exquisitor at the video browser showdown 2020. In Wen-Huang Cheng, Junmo Kim, Wei-Ta Chu, Peng Cui, Jung-Woo Choi, Min-Chun Hu, and Wesley De Neve, editors, *MultiMedia Modeling*, pages 796–802, Cham, 2020. Springer International Publishing.
- [7] Devanshu Arya, Stevan Rudinac, and Marcel Worring. Hyperlearn: A distributed approach for representation learning in datasets with many modalities. In *Proceedings of the 27th ACM International Conference on Multimedia*, MM '19, pages 2245–2253, New York, NY, USA, 2019. ACM.
- [8] Maarten Sukel, Stevan Rudinac, and Marcel Worring. Multimodal classification of urban micro-events. In *Proceedings of the 27th ACM International Conference on Multimedia*, MM '19, pages 1455–1463, New York, NY, USA, 2019. ACM.
- [9] Hanna Ragnarsdóttir, Þórhildur Þorleiksdóttir, Omar Shahbaz Khan, Björn Þór Jónsson, Gylfi Þór Guðmundsson, Jan Zahálka, Stevan Rudinac, Laurent Amsaleg, and Marcel Worring. Exquisitor: Breaking the interaction barrier for exploration of 100 million images. In *Proceedings of the 27th ACM International Conference on Multimedia*, MM '19, pages 1029–1031, New York, NY, USA, 2019. ACM.
- [10] Omar Shahbaz Khan, Björn Þór Jónsson, Jan Zahálka, Stevan Rudinac, and Marcel Worring. Exquisitor at the lifelog search challenge 2019. In *Proceedings of the ACM Workshop on Lifelog Search Challenge, LSC '19*, pages 7–11, New York, NY, USA, 2019. ACM.
- [11] Devanshu Arya, Stevan Rudinac, and Marcel Worring. Predicting behavioural patterns in discussion forums using deep learning on hypergraphs. In *2019 International Conference on Content-Based Multimedia Indexing (CBMI)*, pages 1–6, Sep. 2019.
- [12] Cathal Gurrin, Björn Þór Jónsson, Renaud Péteri, Stevan Rudinac, Stéphane Marchand-Maillet, Georges Quénot, Kevin McGuinness, Gylfi Þór Guðmundsson, Suzanne Little, Marie Katsurai, and Graham Healy, editors. *2019 International Conference on Content-Based Multimedia Indexing, CBMI 2019, Dublin, Ireland, September 4-6, 2019*. IEEE, 2019.
- [13] Jan Zahálka, Stevan Rudinac, Björn Þór Jónsson, Dennis C. Koelma, and Marcel Worring. Blackthorn: Large-scale interactive multimodal learning. *IEEE Transactions on Multimedia*, 20(3):687–698, March 2018.
- [14] Stevan Rudinac, Tat-Seng Chua, Nicolas Diaz-Ferreyra, Gerald Friedland, Tatjana Gornostaja, Benoit Huet, Rianne Kaptein, Krister Lindén, Marie-Francine Moens, Jaakko Peltonen, Miriam Redi, Markus Schedl, David A. Shamma, Alan Smeaton, and Lexing Xie. Rethinking summarization and storytelling for modern social multimedia. In *MultiMedia Modeling*, pages 632–644, Cham, 2018. Springer International Publishing.
- [15] Stevan Rudinac, Iva Gornishka, and Marcel Worring. Multimodal classification of violent online political extremism content with graph convolutional networks. In *Proceedings of Thematic Workshops at ACM Multimedia Conference*, Mountain View, CA USA, 2017.
- [16] Stevan Rudinac, Jan Zahálka, and Marcel Worring. Discovering geographic regions in the city using social multimedia and open data. In *MultiMedia Modeling: 23rd International Conference, MMM 2017, Reykjavik, Iceland, January 4-6, 2017.*, pages 148–159, Cham, 2017. Springer International Publishing.
- [17] Joost Boonzajer Flaes, Stevan Rudinac, and Marcel Worring. What multimedia sentiment analysis says about city liveability. In *Advances in Information Retrieval: 38th European Conference on IR Research, ECIR 2016, Padua, Italy, March 20–23, 2016.*, pages 824–829, Cham, 2016. Springer International Publishing.
- [18] Jorrit van den Berg, Stevan Rudinac, and Marcel Worring. Scenemash: Multimodal route summarization for city exploration. In *Advances in Information Retrieval: 38th European Conference on IR Research, ECIR 2016, Padua, Italy, March 20–23, 2016.*, pages 833–836, Cham, 2016. Springer International Publishing.
- [19] Jan Zahálka, Stevan Rudinac, Björn Þór Jónsson, Dennis C. Koelma, and Marcel Worring. Interactive multimodal learning on 100 million images. In *Proceedings of the 2016 ACM International Conference on Multimedia Retrieval, ICMR '16*, pages 333–337, New York, NY, USA, 2016. ACM.
- [20] Masoud Mazloom, Robert Rietveld, Stevan Rudinac, Marcel Worring, and Willemijn van Dolen. Multimodal popularity prediction of brand-related social media posts. In *Proceedings of the 2016 ACM Conference on Multimedia*, MM '16, pages 197–201, New York, NY, USA, 2016. ACM.

- [21] Björn Thór Jónsson, Marcel Worring, Jan Zahálka, Stevan Rudinac, and Laurent Amsaleg. Ten research questions for scalable multimedia analytics. In *MultiMedia Modeling: 22nd International Conference, MMM 2016, Miami, FL, USA, January 4-6, 2016.*, pages 290–302, Cham, 2016. Springer International Publishing.
- [22] Jan Zahálka, Stevan Rudinac, and Marcel Worring. Interactive multimodal learning for venue recommendation. *IEEE Transactions on Multimedia*, 17(12):2235–2244, Dec 2015.
- [23] Jan Zahálka, Stevan Rudinac, and Marcel Worring. Analytic quality: Evaluation of performance and insight in multimedia collection analysis. In *Proceedings of the 23rd ACM International Conference on Multimedia*, MM '15, pages 231–240, New York, NY, USA, 2015. ACM.
- [24] Judith Redi and Stevan Rudinac. Crowdmm 2015: Fourth international acm workshop on crowdsourcing for multimedia. In *Proceedings of the 23rd ACM International Conference on Multimedia*, MM '15, pages 1341–1342, New York, NY, USA, 2015. ACM.
- [25] Stevan Rudinac and Marcel Worring. Making use of semantic concept detection for modelling human preferences in visual summarization. In *Proceedings of the 2014 International ACM Workshop on Crowdsourcing for Multimedia*, CrowdMM '14, pages 41–44, New York, NY, USA, 2014. ACM.
- [26] Jan Zahálka, Stevan Rudinac, and Marcel Worring. New yorker melange: Interactive brew of personalized venue recommendations. In *Proceedings of the 22nd ACM International Conference on Multimedia*, MM '14, pages 205–208, New York, NY, USA, 2014. ACM.
- [27] Stevan Rudinac. *Advancing the Relevance Criteria for Video Search and Visual Summarization*. Phd, Delft University of Technology, Delft, 05/2013 2013.
- [28] Stevan Rudinac, Alan Hanjalic, and Martha Larson. Generating visual summaries of geographic areas using community-contributed images. *IEEE Transactions on Multimedia*, 15(4):921–932, June 2013.
- [29] Stevan Rudinac, Martha Larson, and Alan Hanjalic. Learning crowdsourced user preferences for visual summarization of image collections. *IEEE Transactions on Multimedia*, 15(6):1231–1243, Oct 2013.
- [30] Stevan Rudinac, Martha Larson, and Alan Hanjalic. Leveraging visual concepts and query performance prediction for semantic-theme-based video retrieval. *International Journal of Multimedia Information Retrieval*, 1(4):263–280, 2012.
- [31] Martha Larson, Mohammad Soleymani, Pavel Serdyukov, Stevan Rudinac, Christian Wartena, Vanessa Murdock, Gerald Friedland, Roeland Ordelman, and Gareth J. F. Jones. Automatic tagging and geotagging in video collections and communities. In *Proceedings of the 1st ACM International Conference on Multimedia Retrieval*, ICMR '11, pages 51:1–51:8, New York, NY, USA, 2011. ACM.
- [32] Stevan Rudinac, Alan Hanjalic, and Martha Larson. Finding representative and diverse community contributed images to create visual summaries of geographic areas. In *Proceedings of the 19th ACM International Conference on Multimedia*, MM '11, pages 1109–1112, New York, NY, USA, 2011. ACM.
- [33] Stevan Rudinac, Martha Larson, and Alan Hanjalic. Tud-mir at mediaeval 2011 genre tagging task: Query expansion from a limited number of labeled videos. In *MediaEval Workshop*, 2011.
- [34] Stevan Rudinac, Martha Larson, and Alan Hanjalic. Exploiting result consistency to select query expansions for spoken content retrieval. In *Advances in Information Retrieval*, volume 5993 of *Lecture Notes in Computer Science*, pages 645–648. Springer Berlin Heidelberg, 2010.
- [35] Stevan Rudinac, Martha Larson, and Alan Hanjalic. Exploiting noisy visual concept detection to improve spoken content based video retrieval. In *Proceedings of the International Conference on Multimedia*, MM '10, pages 727–730, New York, NY, USA, 2010. ACM.
- [36] Stevan Rudinac, Martha Larson, and Alan Hanjalic. Visual concept-based selection of query expansions for spoken content retrieval. In *Proceedings of the 33rd International ACM SIGIR Conference on Research and Development in Information Retrieval*, SIGIR '10, pages 891–892, New York, NY, USA, 2010. ACM.