Martin Bresler

Curriculum Vitae

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Personal information

Date of birth	**21st October 1986**	Place of birth	**Jilemnice**, Czech Republic
Nationality	**Czech**	Marital status	**married**

Education

2012 – present **Ph.D. student**, *Czech Technical University (CTU) in Prague*, Prague, *Artificial Intelligence and Biocybernetics*.
Focus on: On-line handwriting recognition
Oral state doctoral examination: passed
Dissertation: to be defended
Expected future date of graduation: September 2016

2009 – 2011 **Ing. (equivalent to MSc.)**, *Czech Technical University in Prague*, Prague, *Open Informatics*.
Major field of study — Computer Vision and Image Processing, Minor — Computer Graphics and Interaction. Master's thesis: Nao Applications Development Using the Robotic Simulator Webots (supervised by RNDr. Daniel Průša, Ph.D.), www: `http://cyber.felk.cvut.cz/research/theses/detail.phtml?id=175`
Degree conferred: 2011-10-07

2006 – 2009 **Bc. (equivalent to BSc.)**, *Czech Technical University in Prague*, Prague, *Electrical Engineering and Information Technology*.
Field of study — Computer Science. Bachelor's thesis: Tablet Data Analysis of Patients with Parkinson Disease (supervised by Ing. Miroslav Skrbek, Ph.D.)
Degree conferred: 2009-06-25

Awards

February 2015 **Best Paper Award**, *Using Agglomerative Clustering of Strokes to Perform Symbols Over-segmentation within a Diagram Recognition System*, CVWW 2015: Proceedings of the 20th Computer Vision Winter Workshop.

Experience

July 2015 – October 2015 **Intern**, *Apple Inc.*, 1 Infinite Loop, Cupertino, California, USA, Summer internship.
Working in frameworks team and designing a demo application.

October 2014 – January 2015 **Researcher**, *Media Interaction Lab, Department of Interactive Media, University of Applied Sciences Upper Austria*, Hagenberg, Austria, Research internship.
Working on smart sketching tools.

September – December 2013 **Researcher**, *Department of Computer and Information Science, Tokyo University of Agriculture and Technology*, Tokyo, JASSO Student Exchange Program.
Working on a recognition system for on-line sketched diagrams.

2011 – 2013	**Research engineer**, *Center for Machine Perception, CTU in Prague*, Prague, Project AUTMODO.
	Development of an application for vehicle detection in a video stream.

Languages

Czech	**native speaker**
English	**fluent**
Spanish	**basic knowledge**

Computer skills

OS	Windows, Linux, OS X, iOS	Web tech.	(X)HTML, PHP, MySQL, jQuery
Programming languages	C#, Objective-C, C/C++, MATLAB, Java, Python, Swift	IDEs	Microsoft Visual Studio, Xcode, Netbeans, PyCharm

Training

○ Driving license Category B

○ Vision and Sports Summer School (VS3) & NiFTi workshop 2012, Prague, CZ

Other skills and interests

Sport (floorball, volleyball, squash, cycling), Music (classic rock), Film (Sci-fi, Fantasy), Literature (favourite authors: Terry Pratchett, J. R. R. Tolkien, Guy de Maupassant, Oscar Wilde)

Selected publications

M. Bresler, D. Průša, and V. Hlaváč, "On-line recognition of sketched arrow-connected diagrams," *International Journal on Document Analysis and Recognition (IJDAR)*, 2016. Accepted for publication on May 1, 2016.

F. Perteneder, M. Bresler, E.-M. Grossauer, J. Leong, and M. Haller, "cLuster: Smart clustering of free-hand sketches on large interactive surfaces," in *Proceedings of the 28th Annual ACM Symposium on User Interface Software & Technology* (C. Latulipe, ed.), (New York, USA), pp. 37–46, ACM, November 2015.

M. Bresler, D. Průša, and V. Hlaváč, "Using agglomerative clustering of strokes to perform symbols over-segmentation within a diagram recognition system," in *CVWW 2015: Proceedings of the 20th Computer Vision Winter Workshop* (V. L. Paul Wohlhart, ed.), (Inffeldgasse 16/II, 8010 Graz, Austria), pp. 67–74, Graz University of Technology, February 2015.

M. Bresler, D. Pruša, and V. Hlaváč, "Detection of arrows in on-line sketched diagrams using relative stroke positioning," in *WACV 2015: IEEE Winter Conference on Applications of Computer Vision*, (10662 Los Vaqueros Circle, Los Alamitos, USA), pp. 610–617, IEEE Computer Society, January 2015.

M. Bresler, T. Van Phan, D. Pruša, M. Nakagawa, and V. Hlaváč, "Recognition system for on-line sketched diagrams," in *ICFHR 2014: Proceedings of the 14th International Conference on Frontiers in Handwriting Recognition* (J. E. Guerrero, ed.), (10662 Los Vaqueros Circle, Los Alamitos, USA), pp. 563–568, IEEE Computer Society, September 2014.

M. Bresler, D. Průša, and V. Hlaváč, "Modeling flowchart structure recognition as a max-sum problem," in *ICDAR 2013: Proceedings of the 12th International Conference on Document Analysis and Recognition* (L. O'Conner, ed.), (10662 Los Vaqueros Circle, Los Alamitos, USA), pp. 1215–1219, IEEE Computer Society, August 2013.

J. Stria, M. Bresler, D. Průša, and V. Hlaváč, "MfrDB: Database of annotated on-line mathematical formulae," in *ICFHR '12: Proceedings of the 13th International Conference on Frontiers in Handwriting Recognition* (J. E. Guerrero, ed.), (Los Alamitos, USA), pp. 540–545, IEEE Computer Society, September 2012.

Prague, May 11, 2016 . . . .

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