

# László A. Jeni

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[Google Scholar](#), [OSF](#), [LinkedIn](#)



## Research Interests

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I am broadly interested in computer vision and machine learning for computational behavior science, specifically in areas of modelling, analysis, and synthesis of human behavior using diverse sensors. I develop methods to model and analyze multiple, varied nonverbal modalities (face, head, gaze, body from video, and physiology from biosensors). My work is motivated by applications in the field of human health, computer graphics, and assistive computer vision.

## Education

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| 2008 – 2012 | <b>The University of Tokyo</b> (Japan)<br>Ph.D., Electrical Engineering and Information Systems<br>Thesis: "Study on Facial Expression Analysis based on 3D Deformable Model" |
| 2010 – 2011 | <b>RIKEN Brain Science Institute</b> (Japan)<br>Certificate in Neuroscience and Cognitive Neuroscience  |
| 1998 – 2004 | <b>Eötvös Loránd University, Faculty of Informatics</b> (Hungary)<br>M.Sc. in Computer Science<br>Thesis: "Artificial Intelligence Techniques used in the Game of Go"         |
| 1993 – 1998 | <b>John von Neumann Secondary Vocational School for Computer Technology</b> (Hungary)<br>Computer Programmer (1997)<br>Specialist in Geographical Information Systems (1998)  |

## Appointments and Working Experience

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| 2019 –      | <b>Carnegie Mellon University</b> (USA)<br><u>Systems Faculty at the Robotics Institute</u><br><i>Directing the Computational Behavior Lab. We are working on multi-modal methods for computational behavior science, with the long-term goals to inform understanding of neural and social bases of human behavior, and to realize adaptive deep brain stimulation (DBS) systems.</i> |
| 2015 – 2019 | <b>Carnegie Mellon University</b> (USA)<br><u>Project Scientist at the Robotics Institute</u><br><i>Working on dense, 3D metric reconstruction of deformable objects, 3D eye gaze estimation, and automatic multimodal behavior coding (face, head, gaze, and pose).</i>   |
| 2012 – 2015 | <b>Carnegie Mellon University</b> (USA)<br><u>Postdoctoral Researcher at the Robotics Institute</u><br><i>Working on 3D face alignment and automatic coding of facial expressions with Jeffrey F. Cohn and Takeo Kanade.</i>   |
| 2011 – 2012 | <b>Realeyes OU</b><br><u>Senior Computer Vision Specialist</u><br><i>Working on scaling-up face-alignment and face-analysis techniques for real-world conditions.</i>  |

2007 – 2012	<b>The University of Tokyo</b> (Japan) <u>Research Assistant</u> , Global Center of Excellence Program “Secure-Life Electronics”, Department of Electrical Engineering <i>Working on real-time facial expression analysis and human-robot interaction in intelligent environments.</i>
2007 – 2009	<b>Triensis SRO</b> (Slovakia) – startup <u>Managing Director</u> <i>Developing and maintaining a multiplayer, online role-playing game. Leading and managing group of artist and content developers.</i>
2006 – 2007	<b>Eötvös Loránd University</b> (Hungary) <u>Junior Assistant Professor at the Department of Software Technology &amp; Methodology</u> <i>Teaching Robotics, Multi-agent systems, Advanced 3D Computer Graphics and Managed DirectX/XNA</i>
2005 – 2006	<b>Eötvös Loránd University</b> (Hungary) <u>Lecturer at the Department of Media &amp; Educational Technology</u> <i>Teaching 3D game programming, Real-time 3D graphics, Advanced Assembly programming</i>
2003 – 2004	<b>ArchiData Ltd.</b> (Hungary) <u>Software developer</u> <i>Developing the 3DClick architectural CAD software. DirectX API programming (texture mapping, shader programming), photo-rendering integration.</i>

## Funding

<b>Active</b>	<ul style="list-style-type: none"> <li>- <u>Principal-Investigator</u>, “<b>Understanding Pedestrian Behavior in Smart Cities</b>”, Fujitsu Ltd., 11/1/2021 – 10/31/2023</li> <li>- <u>Principal-Investigator</u>, “<b>Dynamic Implicit Neural Representations for Avatar Animation</b>”, Fujitsu Ltd., 9/1/2021 – 8/31/2023</li> <li>- <u>Principal-Investigator</u>, “<b>Inferencing Shape and Location from RGB-D</b>”, Apple Inc., 3/1/2020 - 2/28/2022</li> <li>- <u>Principal-Investigator</u>, “<b>NRI: INT: A New Paradigm for Geometric Reasoning through Structure from Category</b>”, National Science Foundation (NSF 1925281), 9/1/2019 - 8/31/2022</li> <li>- <u>Co-Principal-Investigator</u> (PI: Conrad Tucker, CMU), “<b>Robustness innovations for mobile phone physiology measurement</b>”, Bill and Melinda Gates Foundation, 10/1/2019 - 12/15/2022</li> <li>- <u>Co-Investigator</u> (PI: Jeffrey Cohn, University of Pittsburgh), “<b>Automatic Multimodal Affect Detection for Research and Clinical Use.</b>” National Institute of Mental Health (NIMH R01), 8/1/2017 – 4/30/2022</li> <li>- <u>Co-Investigator</u> (PI: Wayne Goodman, Baylor Medical School), “<b>Adaptive DBS in Non-Motor Neuropsychiatric Disorders: Regulating Limbic Circuit Imbalance.</b>” National Institutes of Health (NIH UH3), 9/30/2016 – 6/30/2022</li> <li>- <u>Co-Investigator</u> (PI: Sameer Anil Sheth), “<b>Deep Brain Stimulation for Depression Using Directional Current Steering and Individualized Network Targeting.</b>”, National Institutes of Mental Health (NIMH 1UH3), 10/1/2017 – 9/30/2022</li> </ul>
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- Past**
- Co-Investigator (PI: Jeffrey Cohn, University of Pittsburgh), "**Automated Facial Expression Analysis for Research and Clinical Use.**", National Institute of Mental Health (NIMH R01), 4/1/2012 – 7/31/2017
  - Principal-Investigator, "**Protective Mask Sizing App.**", Department of Defense/CFD Research Corporation (DoD SBIR), 9/27/2017 - 12/26/2019
  - Principal-Investigator, "**Face/Body Super-resolution for Augment Reality**", Facebook Technologies, LLC, 7/1/2019 – 6/30/2020
  - Principal-Investigator, "**Social interaction analysis using multimodal affect analysis**", Fujitsu Ltd., 9/15/2018 – 9/14/2020
  - Principal-Investigator, "**Semantic Facial Expression Manipulation**", Fujitsu Ltd., 9/1/2020 – 8/31/2021

## Professional Activities

- General Chair of 1st Vision for Vitals Workshop & Challenge (V4V) (In conjunction with ICCV 2021) <https://vision4vitals.github.io/>
- Senior Program Committee Member of 9th International Conference on Affective Computing & Intelligent Interaction (ACII 2021)
- General Chair of 2nd Workshop on 3D Face Alignment in the Wild – Dense Reconstruction from Video (3DFAW-Video) & Challenge (In conjunction with ICCV 2019) <https://3dfaw.github.io/>
- Area Chair, The 13<sup>th</sup> IEEE Conference on Automatic Face and Gesture Recognition (FG 2018). <http://fg2018.org/>
- Data Chair, Facial Expression Recognition and Analysis Challenge (FERA2017), <http://sspnet.eu/fera2017/>
- General Chair of 1st Workshop on 3D Face Alignment in the Wild (3DFAW) & Challenge (In conjunction with ECCV 2016, <http://mhug.disi.unitn.it/workshop/3dfaw/>)
- Founding member of the Section of Robotics, John von Neumann Computer Society, Hungary
- Editorial Board Member of the International Journal of Computer Vision and Signal Processing (IJCVSP)
- Member of the NAIST International Collaborative Laboratory for Robotics Vision, Nara, Japan, (<http://rvlab.naist.jp/members.html>), 2014 –
- Member of the Student Activities Subcommittee at the IEEE Computational Intelligence Society, 2010 – 2012
- Served and continue to serve on the PC of conferences in vision & ML (CVPR, ICCV, ECCV, ACCV, NeurIPS)

## Awards & Scholarships

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| 2021 | Outstanding Article Award - Editor's Pick 2021: Computer Science (Frontiers, 2021)                                   |
| 2019 | Top Reviewer (NeurIPS, 2019, Vancouver, Canada)  |
| 2017 | Outstanding Reviewer (CVPR 2017, Honolulu, Hawaii)   |
| 2015 | Best Paper Award (IEEE FG 2015, Ljubljana, Slovenia)<br>Paper: "Dense 3D Face Alignment from 2D Videos in Real-Time" |
| 2015 | Outstanding Reviewer Award (IEEE FG 2015, Ljubljana, Slovenia)   |
| 2011 | Session Best Paper Award (IEEE HSI 2011, Yokohama)   |

	Paper: "Using Conditional Random Fields to Validate Observations..."
2010 – 2011	RIKEN Brain Science Training Program (Trainee) By: RIKEN Institute, Japan
2010	Machine Learning Summer School Scholarship (Canberra, Australia)
2007 – 2011	Japanese government scholarship (Monbukagakusho) By: Ministry of Education, Culture, Sports, Science and Technology, Japan
2006 – 2007	Scholarship of the Eötvös Loránd University, predoctoral appointment
2005	OTDK National Student Research Competition, 1 <sup>st</sup> prize (Computer Graphics) By: Council of National Scientific Students' Associations Paper: "Real-time Dual-paraboloid Shadow Mapping"

## Teaching Experience

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<b>Lecturing</b>	<b>Carnegie Mellon University</b>
2021 Fall	16621 - MSCV Project I
2021 Fall	16622 - MSCV Capstone
	<b>Eötvös Loránd University, Budapest, Hungary</b>
2007 Spring	Managed DirectX and XNA (ca. 25 graduate students)
2006F, 2007S	Multi-agent Systems (ca. 25 graduate students)
2006F, 2007S	Robotics (ca. 25 graduate students)
2006 Fall	Advanced 3D Computer Graphics (ca. 40 graduate students):
2005 Fall	3D Game Programming (ca. 30 graduate students):
2003-2006 S.	Advanced Assembly Programming (ca. 30 students):
2003-2006, S.	Real-time 3D Graphics (ca. 30 students):
2004-2006 S.	Fractal Geometry (ca. 20 students):
<b>PhD Adviser</b>	<b>Carnegie Mellon University</b>
2021-	Chaoyang Wang, CMU RI PhD (Deep Non-rigid Structure from Motion)
2021-	Mosamkumar Dabhi, CMU RI PhD (Inferencing Shape & Motion from RGB-D)
2021-	Rohan Choudhury, CMU RI PhD (Pedestrian Behavior Forecasting)
2018-	Yaohan Ding, University of Pittsburgh PhD (Automated Facial Affect Analysis for Deep Brain Stimulation)
2018-	Maneesh Bilalpur, University of Pittsburgh PhD (Multimodal machine learning for depression risk estimation)
<b>MSc. Adviser</b>	<b>Carnegie Mellon University</b>
2022-	Deepti Upmaka, MSCV (Neural Representations for Avatar Animation)
2022-	Nian-Hsuan Tsai, MSCV (Neural Representations for Avatar Animation)
2022-	Adithya Sampath, MSCV (Modeling and Understanding Pedestrian Behavior)
2022-	Mu Chien Hsu, MSCV (Modeling and Understanding Pedestrian Behavior)
2021-	Heng Yu, CMU MSR (Neural Rendering for Avatar Animation)
2021-	Aarush Gupta, CMU MSR (Deep Non-rigid Structure from Motion)
2020-	Ambareesh Revanur, CMU MSR (Mobile Phone Physiology Measurement)
2019-2020	Dai Li, CMU MSCV (Semantic Facial Expression Manipulation)
2019-2020	Zhuoqian Yang, CMU MSCV (Semantic Facial Expression Manipulation)
2019-2020	Rahul Mysore Venkatesh, CMU MSCV (Implicit 3D representations)
2018-2019	Chenxi Xu, CMU MSCV, (topic: Deep 3D Mesh Reconstruction)
2018-2019	Neeraj Sajjan, CMU MSCV, (topic: Deep 3D Mesh Reconstruction)
2018-2020	Rohith Krishnan Pillai, CMU MSR (topic: Dense 3D Face Reconstruction)
2017-2019	Bhavan Jasani, CMU MSR (topic: Behavior analysis, co-advised with Jeff Cohn)
2017	Wanqiao Ding, CMU ECE (topic: Behavior analysis, co-advised with Jeff Cohn)

- 2013 **Eötvös Loránd University, Budapest, Hungary**  
Tamás Nagy and Judit Sebők (co-advised with András Lőrincz for the National Scientific Conference of Students, Project title: "3D Constrained Local Model and its use in Facial Expression Recognition", the project won the 3<sup>rd</sup> place)
- 2008 Milán Magdics (M.Sc. Thesis title: "Procedural Modelling in Computer Graphics")
- 2007 Péter Balázs (M.Sc. Thesis title: "Study on Distributed, Online Games")

### Undergrad Supervision

- Eötvös Loránd University, Budapest, Hungary**
- 2008 Péter Surányi (B.Sc. Project title: "3D Graphical Engine for Rendering Exterior Scenes")
- 2007 Krisztián Bokros (B.Sc. Project title: "3D Simulator using UIQ and OpenGL ES")
- 2007 Gergely Klár (B.Sc. Project title: "Numerical Methods for Cloth Simulation")
- 2006 Endre Kolláth (B.Sc. Project title: "Generating and Rendering of Near-realistic 3D Trees")
- 2006 Péter Balázs (B.Sc. Project title: "Networked, 3D Space Simulation using Java3D")

### Visiting Scholars

- 2018- Koichiro Niinuma, (Fujitsu)
- 2015 Sergey Tulyakov, visiting PhD student (University of Trento)

### Media Coverage

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- 2022 [M.6] **"Fujitsu, Carnegie Mellon University Collaborate to Develop 'Social Digital Twin' Technology for Smart Cities"**, Bloomberg, 2022
- 2021 [M.5] **"Better deep brain stimulation therapy for OCD"**, Science Daily, 2021
- 2021 [M.4] **"Researchers identify brain signals associated with OCD symptoms, paving way for adaptive treatment"**, Science Daily, 2021
- 2019 [M.3] **"AI based Facial Expression Recognition Technology to Accurately Detect Subtle Changes in Expression"**, Yahoo! Finance News, 2019
- 2019 [M.2] **"Facial recognition: This new AI tool can spot when you are nervous or confused"**, ZDNet, 2019
- 2015 [M.1] **"How New Technology Helps Blind People Explore the World" with Chieko Asakawa**, TED@IBM, 2015

### Invited Talks

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- 2022 [I.13] **Behavioral Digital Twins**  
Fujitsu FLATS Smart Cities Symposium (1 hour)  
Virtual, 2022
- 2019 [I.12] **Multimodal Computational Behavior Understanding**  
Fujitsu Laboratories (1 hour)  
Tokyo, Japan, 2019
- 2019 [I.11] **Multimodal Computational Behavior Understanding**  
National Robotics Engineering Center (1 hour)  
Pittsburgh, PA, USA, 2019
- 2018 [I.10] **Multimodal Computational Behavior Understanding**  
The University of Tokyo (1 hour)  
Tokyo, Japan, 2018

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- 2016 [I.9] **Automated 3D Face Tracking for Facial Behavior Analysis**  
Nara Institute of Science and Technology Seminar (1 hour)  
Nara, Japan, 2016
  - 2015 [I.8] **Automated Expression and Gaze Analysis**  
Realeyes Ltd., colloquium (1 hour)  
Budapest, Hungary, 2015
  - 2015 [I.7] **Large-Scale Facial Behavior Understanding**  
RIKEN Advanced Institute for Computational Science (AICS), colloquium (1 hour)  
Tokyo, Japan, 2015
  - 2014 [I.6] **Automated 3D Face Tracking for Facial Behavior Analysis**  
Chuo University, Faculty of Science and Engineering Seminar (1.5 hour)  
Tokyo, Japan, 2015
  - 2014 [I.5] **Automatic Coding of Facial Expressions using Dense 3D Deformable Models**  
Apple Inc., colloquium (1 hour)  
Cupertino, CA, USA, 2014
  - 2011 [I.4] **Affective Computing in Intelligent Environments**  
Eötvös Loránd University, NJSZT Robotics Seminar (1 hour)  
Budapest, Hungary, 2011.
  - 2010 [I.3] **Safe Robot Controlling System using the iSpace Environment**  
Seoul National University, Seminar on Electrical Engineering,  
Seoul, Korea, 2010.
  - 2010 [I.2] **Cognitive Robotics and Emotion Recognition in iSpace Environments**  
Eötvös Loránd University, John von Neumann Computer Society (Section of Robotics)  
Seminar (1 hour)  
Budapest, Hungary, 2010.
  - 2009 [I.1] **Cognitive Robotics in the Intelligent Space**  
University of Pisa, Centro E. Piaggio (1 hour)  
Italy, Pisa, 2009.

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## Departmental Talks

- 2018 [D.5] **Multimodal Computational Behavior Understanding**  
Carnegie Mellon University (1 hour)  
Pittsburgh, PA, USA, 2018
- 2017 [D.4] **Challenges Facing Computational Face**  
Carnegie Mellon University, Vision and Autonomous Systems Center Seminar (1 hour)  
Pittsburgh, PA, USA, 2017
- 2015 [D.3] **Automated 3D Gaze Estimation and Expression Detection**  
Carnegie Mellon University, People Image Analysis Workshop (30 mins)  
Pittsburgh, PA, USA, 2015
- 2014 [D.2] **Dense 3D Face Alignment in Real-Time**  
Carnegie Mellon University, People Image Analysis Workshop (30 mins)  
Pittsburgh, PA, USA, 2014

- 2012 [D.1] **Facial Expression Analysis based on 3D Deformable Models**  
Carnegie Mellon University, Vision and Autonomous Systems Center Seminar (1 hour)  
Pittsburgh, PA, USA, 2012

## Publications

### Theses

- 2012 [T.2] László A. Jeni, **Study on Facial Expression Analysis based on 3D Deformable Model**, PhD thesis, The University of Tokyo, 2012.
- 2004 [T.1] László A. Jeni, **Artificial Intelligence Techniques used in the Game of Go**, Master's thesis, Eötvös Loránd University, 2004.

### Book Chapters

- 2020 [B.2] Jeffrey M. Girard, Jeffrey F. Cohn, László A. Jeni, Michael A. Sayette, Fernando De La Torre, **Spontaneous Facial Expression in Unscripted Social Interactions Can Be Measured Automatically**, In P. Ekman & E. Rosenberg (Eds.), *What the Face Reveals* (3<sup>rd</sup> ed.), pp. 146-162, Oxford University Press, 2020.
- 2019 [B.1] Cohn, Jeffrey F., Itir Onal Ertugrul, Wen-Sheng Chu, Jeffrey M. Girard, László A. Jeni, and Zakia Hammal, **Affective facial computing: Generalizability across domains**, In *Multimodal Behavior Analysis in the Wild*, pp. 407-441. Academic Press, 2019 (<https://www.sciencedirect.com/science/article/pii/B9780128146019000262>)

### Journal articles

- 2022 [J.16] Koichiro Niinuma, Itir Onal Ertugrul, Jeffrey F Cohn and Laszlo A. Jeni, **"Facial expression manipulation for personalized facial action estimation"**, *Frontiers in Signal Processing*. (accepted)
- 2022 [J.15] Ambareesh Revanur, Ananyananda Dasari, Conrad S. Tucker, László A. Jeni, **"Instantaneous Physiological Estimation using Video Transformers"**, *Studies in Computational Intelligence*, Springer (accepted), 2022
- 2021 [J.14] Provenza, N. R., Sheth, S. A., Rijn, E. M. D.-v., Mathura, R. K., Ding, Y., Vogt, G. S., Avendano-Ortega, M., Ramakrishnan, N., Peled, N., Gelin, L. F. F., Xing, D., Jeni, L. A., Ertugrul, I. O., Barrios-Anderson, A., Matteson, E., Wiese, A. D., Xu, J., Viswanathan, A., Bijanki, K., Storch, E. A., Cohn, J. F., Goodman, W. K., & Borton, D. A. (2021). **Long-term ecological assessment of intracranial electrophysiology synchronized to behavioral markers in Obsessive-Compulsive Disorder**. *Nature Medicine*.
- 2021 [J.13] Ananyananda Dasari, Sakthi Kumar Arul Prakash, László A. Jeni, and Conrad S. Tucker. **"Evaluation of biases in remote photoplethysmography methods."** *NPJ digital medicine* 4, no. 1 (2021): 1-13.
- 2021 [J.12] Koichiro Niinuma, Itir Onal Ertugrul, Jeffrey F Cohn, Laszlo A. Jeni. **"Systematic Evaluation of Design Choices for Deep Facial Action Coding Across Pose"**, In *Frontiers in Computer Science*, Frontiers, 2021, doi: 10.3389/fcomp.2021.636094
- 2021 [J.11] X. Xu, H. Chen, F. Moreno-Noguer, L. A. Jeni and F. De la Torre, **"3D Human Pose, Shape and Texture from Low-Resolution Images and Videos,"** in *IEEE Transactions on Pattern Analysis and Machine Intelligence*, doi: 10.1109/TPAMI.2021.3070002.

- 2020 [J.10] Itir Onal Ertugrul, Jeffrey F. Cohn, László A. Jeni, Zheng Zhang, Lijun Yin, and Qiang Ji. **"Crossing Domains for AU Coding: Perspectives, Approaches, and Measures."** IEEE transactions on biometrics, behavior, and identity science 2, no. 2 (2020): 158-171.
- 2019 [J.9] Itir Onal Ertugrul, Le Yang, László A. Jeni, Jeffrey F Cohn, **D-PAttNet: Dynamic patch-attentive deep network for action unit detection**, In Frontiers in Computer Science, Frontiers, volume 1, 2019.  
(<https://www.frontiersin.org/articles/10.3389/fcomp.2019.00011/full>)
- 2018 [J.8] Itir Onal Ertugrul, László A. Jeni, Hamdi Dibeklioglu, **Modeling and Synthesis of Kinship Patterns of Facial Expressions**, in In Image and Vision Computing, 2018  
(<https://doi.org/10.1016/j.imavis.2018.09.012>)
- 2017 [J.7] Sergely Tulyakov, László A. Jeni, Jeffrey F. Cohn, Nicu Sebe, **Viewpoint-consistent 3D Face Alignment**, in IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017 (<http://doi.org/10.1109/TPAMI.2017.2750687>)
- 2016 [J.6] László A. Jeni, Jeffrey F. Cohn, Takeo Kanade, **Dense 3D Face Alignment from 2D Video for Real-Time Use**, In Image and Vision Computing, 2016  
(<http://dx.doi.org/10.1016/j.imavis.2016.05.009>)
- 2014 [J.5] Jeffrey M. Girard, Jeffrey F. Cohn, László A. Jeni, Michael A. Sayette, Fernando De La Torre, **Spontaneous facial expression in unscripted social interactions can be measured automatically**, In Behavior Research Methods, Springer US, 2014.
- 2012 [J.4] László A. Jeni, András Lőrincz, Tamás Nagy, Zsolt Palotai, Judit Sebők, Zoltán Szabó, Dániel Takács, **3D shape estimation in video sequences provides high precision evaluation of facial expressions**, In Image and Vision Computing, Elsevier, volume 30, 2012.
- 2012 [J.3] László A. Jeni, Hideki Hashimoto, Takashi Kubota, **Robust Facial Expression Recognition Using Near Infrared Cameras**, In Journal of Advanced Computational Intelligence and Intelligent Informatics, Fujipress, volume 16, 2012.
- 2010 [J.2] Hideki Hashimoto, Takeshi Sasaki, László A. Jeni, **Current Status of Intelligent Space**, In Journal of Measurement Science and Instrumentation, volume 01, 2010.
- 2008 [J.1] László A. Jeni, György Flórea, András Lőrincz, **InfoMax Bayesian Learning of the Furuta Pendulum**, In Acta Cybernetica, volume 18, 2008.

## Conferences & workshops

- 2021 [C.49] Ali Darzi, Nicole R. Provenza, László A. Jeni, David A. Borton, Sameer A. Sheth, Wayne K. Goodman, and Jeffrey F. Cohn. **"Facial Action Units and Head Dynamics in Longitudinal Interviews Reveal OCD and Depression severity and DBS Energy."** In 2021 16th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2021), pp. 1-6. IEEE, 2021.
- 2021 [C.48] Mosam Dabhi and Chaoyang Wang and Kunal Saluja and Laszlo Jeni and Ian Fasel and Simon Lucey. **"High Fidelity 3D Reconstructions with Limited Physical Views."** arXiv preprint arXiv: 2110.11599 (2021).
- 2021 [C.47] Ambareesh Revanur, Zhihua Li, Umur A. Ciftci, Lijun Yin, and László A. Jeni. **"The first vision for vitals (v4v) challenge for non-contact video-based physiological estimation."** In Proceedings of the IEEE/CVF International Conference on Computer Vision, pp. 2760-2767. 2021.



- 2021 [C.46] Rahul Venkatesh, Tejan Karmali, Sarthak Sharma, Aurobrata Ghosh, R. Venkatesh Babu, László A. Jeni\*, Maneesh Singh\*. **"Deep Implicit Surface Point Prediction Networks."** In Proceedings of the IEEE/CVF International Conference on Computer Vision, pp. 12653-12662. 2021.
- 2021 [C.45] Koichiro Niinuma, Itir Onal Ertugrul, Jeffrey F Cohn, László A Jeni. **"Synthetic Expressions are Better Than Real for Learning to Detect Facial Actions."** In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2021
- 2020 [C.44] Rahul Venkatesh, Sarthak Sharma, Aurobrata Ghosh, László A. Jeni, Maneesh Singh. **"DUDE: Deep Unsigned Distance Embeddings for Hi-Fidelity Representation of Complex 3D Surfaces."** arXiv preprint arXiv:2011.02570 (2020).
- 2020 [C.43] Yaohan Ding, Itir Onal Ertugrul, Ali Darzi, Nicole Provenza, László A Jeni, David Borton, Wayne Goodman, Jeffrey Cohn. **"Automated Detection of Optimal DBS Device Settings."** In Companion Publication of the 2020 International Conference on Multimodal Interaction (ICMI), Utrecht, The Netherlands, 2020
- 2020 [C.42] Xiangyu Xu, Hao Chen, Francesc Moreno-Noguer, László A. Jeni, and Fernando De la Torre. **"3D Human Shape and Pose from a Single Low-Resolution Image with Self-Supervised Learning."** In 2020 European Conference on Computer Vision (ECCV), 2020.
- 2019 [C.41] Rohith Krishnan Pillai, László A Jeni, Huiyuan Yang, Zheng Zhang, Lijun Yin, Jeffrey F Cohn, **The 2nd 3D Face Alignment in the Wild Challenge (3DFAW-Video): Dense Reconstruction From Video**, In Proceedings of the IEEE International Conference on Computer Vision Workshops, 2019.
- 2019 [C.40] Koichiro Niinuma, László A Jeni, Itir Onal Ertugrul, Jeffrey F Cohn, **Unmasking the Devil in the Details: What Works for Deep Facial Action Coding?**, In 30th British Machine Vision Conference (BMVC 2019), 2019.
- 2019 [C.39] Itir Onal Ertugrul, László A Jeni, Jeffrey F Cohn, **PAttNet: Patch-attentive deep network for action unit detection**, In 30th British Machine Vision Conference (BMVC 2019), 2019.
- 2019 [C.38] Itir Onal Ertugrul, László A Jeni, Wanqiao Ding, Jeffrey F Cohn, **AFAR: A Deep Learning Based Tool for Automated Facial Affect Recognition**, In 2019 14th IEEE International Conference on Automatic Face & Gesture Recognition (FG 2019), 2019.
- 2019 [C.37] Itir Onal Ertugrul, Jeffrey F. Cohn, Laszlo A. Jeni, Zheng Zhang, Lijun Yin and Qiang Ji, **Cross-domain AU Detection: Domains, Learning Approaches, and Measures**, In 2019 14th IEEE International Conference and Workshops on Automatic Face and Gesture Recognition (FG), 2019 **(accepted as oral)**.
- 2018 [C.36] Jeffrey F. Cohn, László A Jeni, Itir Onal Ertugrul, Donald Malone, Michael S. Okun, David Borton, Wayne Goodman. **Automated multimodal measurement of behavioral response to deep brain stimulation in obsessive-compulsive disorder: A pilot study**. In Proceedings of the ACM International Conference on Multimodal Interfaces (ICMI), Boulder, CO, 2018. **(oral)**
- 2018 [C.35] Itir Onal Ertugrul, László A Jeni, Jeffrey F. Cohn. **FACSCaps: Pose-Independent Facial Action Coding With Capsules**. In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops. 2018.

- 2018 [C.34] Mengtian Li, László A Jeni, Deva Ramanan. **Brute-Force Facial Landmark Analysis With A 140,000-Way Classifier.** In 32<sup>nd</sup> AAAI Conference on Artificial Intelligence, 2018.
- 2018 [C.33] Mohit Sharma, Dragan Ahmetovic, László A Jeni, Kris Kitani. **Recognizing Visual Signatures of Spontaneous Head Gestures.** In IEEE Winter Conf. on Applications of Computer Vision (WACV), 2018. (oral)
- 2017 [C.32] Michel F Valstar, Enrique Sánchez-Lozano, Jeffrey F Cohn, László A Jeni, Jeffrey M Girard, Zheng Zhang, Lijun Yin, Maja Pantic. **FERA 2017 - Addressing Head Pose in the Third Facial Expression Recognition and Analysis Challenge.** In 2017 11th IEEE International Conference and Workshops on Automatic Face and Gesture Recognition (FG), 2017.
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### **Additional Information**

Memberships	IEEE (2010 -), Siggraph (2017-)
Languages	Hungarian (native), English (fluent), Japanese (intermediate), German (basic)
Computer languages	Python, C++, C#, Matlab