

## Curriculum Vitae

Name: Nora Horanyi  
Web site: <https://horanyinora.github.io/>



### I. EDUCATION

- 2018-            Ph.D. in Computer Science  
Intelligent Robotics Laboratory, School of Computer Science  
University of Birmingham, Birmingham, UK
- 2016-2018      M.Sc. in Info-Bionics Engineering  
Faculty of Science and Informatics, University of Szeged  
Final grade: 4.88/5, Thesis: excellent with institutional award
- 2012-2016      B.Sc. in Molecular Bionics Engineering  
Faculty of Science and Informatics, University of Szeged  
Final Grade: 3.97/5, Thesis: excellent with national awards
- 2008-2012      Specialized Mathematics class  
Ságvári Endre Grammar School, Szeged, Hungary  
Final Grade: 4.8/5

### II. TRAININGS

- 7-13<sup>th</sup>            International Computer Vision Summer School  
July 2019        Punta Sampieri, Sicily
- 29-31<sup>st</sup>          Drone School & Workshop: Deep learning and Computer vision for drone imaging  
August 2018     and cinematography  
Artificial Intelligence and Information Analysis (AIIA) Lab, Department of Computer  
Science Aristotle University of Thessaloniki (AUTH), Greece
- 21-26<sup>th</sup>          Vision and Sports Summer School  
August 2017     Czech Technical University  
Prague, Czech Republic
- Poster presentation: Multiview Absolute Pose Using 3D - 2D Perspective Line  
Correspondences and Vertical Direction.
- 7-16<sup>th</sup>            Summer School on Image Processing  
June 2016        University of Szeged, Hungary
- 2<sup>nd</sup> prize in the project competition  
Project: OCT image analysis
- 20-22<sup>nd</sup>          Advanced Spring School for Students in Biology,  
March 2015      Eötvös Loránd University, Budapest, Hungary
- 14-25<sup>th</sup>          Lasers in Medicine and Life Sciences  
July 2014        Advanced Summer School for Students in Medicine and Physics  
University of Szeged, Hungary

### III. SCIENTIFIC COMMUNICATIONS

2017     **Nora Horanyi**, Zoltan Kato, Generalized Pose Estimation from Line Correspondences with Known Vertical Direction, *In Proceedings of International Conference on 3D Vision*, Qingdao, China, 2017, IEEE.

**Nora Horanyi**, Zoltan Kato, Multiview Absolute Pose Using 3D - 2D Perspective Line Correspondences and Vertical Direction, *In Proceedings of ICCV Workshop on Multiview Relationships in 3D Data*, Venice, Italy, 2017, IEEE.

Ana Raquel Santa Maria, Fruzsina Walter, **Nora Horanyi**, András Kincses, Ilona Gróf, Sándor Valkai, András Dér, Mária A. Deli. The effect of surface charge on brain endothelial permeability. *Straub days* - Biological Research Centre, HAS (poster)

### IV. PROFESSIONAL EXPERIENCE

2018-     Teaching Assistant  
School of Computer Science, University of Birmingham  
  
Courses: Mathematical Foundations of Computer Science, Robot Vision

Jan-June 2018     Research Associate  
Chair of Computer Graphics and Visualization  
Technical University of Dresden, Germany  
Supervisor: Prof. Dr. rer. nat. Stefan Gumhold  
  
NeuroFusion Project

2016-2017     Student researcher  
Research Group on Visual Computation  
University of Szeged, Hungary  
Supervisor: Prof. Zoltan Kato  
  
Master's thesis: Absolute pose estimation using 3D-2D line correspondences and vertical direction

April-May 2017     Student researcher – short research stay  
Research Center for Automatic Control of Nancy  
University of Lorraine, France  
Supervisor: Constantin Morărescu  
  
Project: Developing drone control application based on sensor and visual information in the framework of the NETASSIST project

2014-2016     Student researcher  
Biomolecular Electronics Research group  
Biological Research Centre, HAS, Szeged, Hungary  
Supervisors: Dr. Andras Der and Andras Kincses  
  
Project: Integrated, microfluidical biochip development and testing according to measurements of Zeta potencial

2013-2016     Student researcher  
Molecular Neurobiology Laboratory, Institute of Biophysics  
Biological Research Centre, HAS, Szeged, Hungary  
Supervisors: Dr. Maria Deli and Dr. Fruzsina Walter

Bachelor's thesis: Changing the surface charge of brain endothelial cells by the digestion of glycocalyx with enzymes (rating: excellent)

## V. HONOURS AND AWARDS

3 <sup>rd</sup> May 2019	Best presentation award Research skills module, School of Computer Science, University of Birmingham
7 <sup>th</sup> December 2017	1 <sup>st</sup> prize in the local competition round of National Scientific Students' Associations Conference organized by the University of Szeged Presented topic: Vision-based localisation of a generalized camera from line correspondences and known vertical direction
12 <sup>th</sup> April 2017	3 <sup>rd</sup> prize in the National Scientific Students' Associations Conference organized by the Hungarian National Council of Student Research Societies Biology section - Animal physiology Presented topic: Changing the surface charge of brain endothelial cells by the digestion of glycocalyx with enzymes
24 <sup>th</sup> November 2016	2 <sup>nd</sup> prize in the local competition round of National Scientific Students' Associations Conference organized by the University of Szeged Presented topic: Changing the surface charge of brain endothelial cells by the digestion of glycocalyx with enzymes
16 <sup>th</sup> June 2016	2 <sup>nd</sup> prize in the project competition - Summer School on Image Processing Project: OCT image analysis

## VI. SCHOLARSHIPS AND GRANTS

October 2018 –	Ph.D. studentship from the University of Birmingham
December 2017	Scholarship from Morgan Stanley for the outstanding results in TDK conference
November 2017 - January 2017	"Visual computations" scientific scholarship for talented young researchers of the University of Szeged
January 2013 - December 2017	Monthly grant from the University of Szeged for excellent grades based on cumulative GPA credits
January 2017 - November 2017	"Visual computations" scientific scholarship for talented young researchers of the University of Szeged
February 2016 - January 2018	Hungarian Governmental Scholarship for my master studies in Info-bionics Engineering
September 2012 - January 2016	Hungarian Governmental Scholarship for my bachelor studies in Molecular Bionics Engineering

## VII. COMPETENCES

Language	English: C1 level, complex, German: passive B2
Driving	B2 driving licence
Computational skills	European Computer Driving Licence Certificate
Programming skills	MATLAB, python
and other softwares	Maple, R Statistical Software
Other	Team spirit, ability to cooperate, open-minded, creativity, logical thinking, hard-working, goal oriented

## VIII. OTHER ACTIVITIES

2019	Girls in STEM Day workshop organization Intelligent Robotics Lab, School of Computer Science, University of Birmingham
2018-	Mini and summer projects supervision of MSc students in Computer Science
2013- 2017	Teaching Calculus and Mathematics for fellow graduate and grammar school students as my hobby
2016	Organization and presentation of the Girls in ICT event to motivate the secondary school girl students to start their studies in the field of informatics
2015 -2016	International Mentor of the Stipendium Hungaricum foreigner students of the University of Szeged
2013 -2016	Organization and laboratory presentation at the National Researcher's Night in Biological Research Centre of Szeged
2013 -2016	Organization of the annual Brain Awareness Week in Hungary, Szeged