Nora Horanyi

PH.D. CANDIDATE

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Education

Ph.D. in Computer Science
Birmingham, UK

INTELLIGENT ROBOTICS LABORATORY, SCHOOL OF COMPUTER SCIENCE, UNIVERSITY OF BIRMINGHAM
2018-present

- **Thesis topic:** Human attention target estimation and application on images

M.Sc. in Info-Bionics Engineering
Szeged, Hungary

FACULTY OF SCIENCE AND INFORMATICS, UNIVERSITY OF SZEGED
2016-2018

- **Thesis title:** Absolute pose estimation using 3D-2D line correspondences and vertical direction — *Excellent with institutional award*
- **Final grade:** 4.88/5

B.Sc. in Molecular Bionics Engineering
Szeged, Hungary

FACULTY OF SCIENCE AND INFORMATICS, UNIVERSITY OF SZEGED
2012-2016

- **Thesis title:** Measurement of electric surface charge on cultured brain endothelial cells — *Excellent with national awards*
- **Final grade:** 3.97/5

Specialized Mathematics class
Szeged, Hungary

SÁGVÁRI ENDRE GRAMMAR SCHOOL, SZEGED, HUNGARY
2008-2012

- **Final grade:** 4.8/5

Experience

Research Assistant
Birmingham, UK

SCHOOL OF COMPUTER SCIENCE, UNIVERSITY OF BIRMINGHAM
Aug. 2021 - present

- Research project with the Korea Electronics Technology Institute
- Supervisor: Dr. Hyung Jin Chang

Teaching Assistant
Birmingham, UK

SCHOOL OF COMPUTER SCIENCE, UNIVERSITY OF BIRMINGHAM
2018 - present

- Courses: Mathematical Foundations of Computer Science, Robot Vision, Computer Vision and Imaging

Research Associate
Dresden, Germany

CHAIR OF COMPUTER GRAPHICS AND VISUALIZATION, TECHNICAL UNIVERSITY OF DRESDEN
Jan. 2018 - June 2018

- NeuroFusion project
- Supervisor: Prof. Dr. rer. nat. Stefan Gumhold

Student researcher
Nancy, France

RESEARCH CENTER FOR AUTOMATIC CONTROL OF NANCY, UNIVERSITY OF LORRAINE
Apr. 2017 - May 2017

- NETASSIST project
- Supervisor: Constantin Morãrescu

Student researcher
Szeged, Hungary

RESEARCH GROUP ON VISUAL COMPUTATION, UNIVERSITY OF SZEGED
2016 - 2018

- Master's thesis project
- Traffic Object Detection and Registration with Stereo Imaging System project
- Supervisor: Prof. Zoltan Kato

Student researcher
Szeged, Hungary

BIOMOLECULAR ELECTRONICS RESEARCH GROUP, BIOLOGICAL RESEARCH CENTRE, HAS
2014 - 2016

- Integrated, microfluidical biochip development project
- Supervisors: Dr. Andras Der and Dr. Andras Kincses

Student researcher
Szeged, Hungary

MOLECULAR NEUROBIOLOGY LABORATORY, INSTITUTE OF BIOPHYSICS, BIOLOGICAL RESEARCH CENTRE, HAS
2013 - 2016

- Bachelor's thesis project
- Supervisors: Dr. Maria Deli and Dr. Fruzsina Walter

Publications

2022	Nora Horanyi, Kedi Xia, Kwang Moo Yi, Abhishake Kumar Bojja, Ales Leonardis, Hyung Jin Chang
	TP-AE: Temporally Primed 6D Object Pose Tracking with Auto-Encoders .
	In Proceedings of Conference on Robotics and Automation (ICRA), IEEE
2021	Linfang Zheng, Ales Leonardis, Tze Ho Elden Tse, Nora Horanyi, Hua Chen, Wei Zhang, Hyung Jin Chang
	Repurposing Existing Deep Networks for Caption andAesthetic-Guided Image Cropping.
	In Proceedings of Pattern Recognition, Elsevier
2020	Andras Kincses, Ana R. Santa-Maria, Fruzsina R. Walter, Laszlo Der, Nora Horanyi, Dora V. Lipka, Sandor Valkai, Maria A. Deli, and Andras Der
	A chip device to determine surface charge properties of confluent cell monolayers by measuring streaming potential.
	In Proceedings of Lab on a chip, Royal Society of Chemistry
2017	Nora Horanyi, Zoltan Kato
	Multiview Absolute Pose Using 3D - 2D Perspective Line Correspondences and Vertical Direction.
	In Proceedings of the ICCV Workshop on Multiview Relationships in 3D Data, IEEE
2017	Nora Horanyi, Zoltan Kato
	Generalized Pose Estimation from Line Correspondences with Known Vertical Direction.
	In Proceedings of International Conference on 3D Vision, IEEE

Honors & Awards

2019	**Best presentation award**, Research skills module, EPS, University of Birmingham	*Birmingham, UK*
2017	**1st prize & Outstanding research Morgan Stanley award - oral presentation**, Computer Science section, Local competition round, National Scientific Students' Associations Conference	*Szeged, Hungary*
2017	**Honor of the Dean of the University of Szeged**, Achievements in the National Scientific Students' Associations Conferences	*Szeged, Hungary*
2017	**3rd prize - oral presentation**, Biology section (Animal Pshysiology), National competition round, National Scientific Students' Associations Conference	*Debrecen, Hungary*
2016	**2nd prize - oral presentation**, Biology section (Animal Pshysiology), Local competition round, National Scientific Students' Associations Conference	*Szeged, Hungary*
2016	**2nd prize - Image processing project competition**, Summer School on Image Processing	*Szeged, Hungary*

Scholarships & Grants

2018	**Ph.D. studentship**, School of Computer Science, University of Birmingham	*Birmingham, UK*
2018	**Morgan Stanley scholarship**, Outstanding research performance in TDK conference	*Szeged, Hungary*
2017	**Research scholarship**, Institute of Informatics, University of Szeged	*Szeged, Hungary*
2012-2018	**Hungarian Governmental Scholarship**, Scholarship for Higher Education for outstanding GPA	*Hungary*

Training

International Computer Vision Summer School — *Punta Sampieri, Ragusa, Scicli*
ICVSS — *2020*

Drone School and Workshops - Deep learning and Computer vision for drone imaging and cinematography — *Thessaloniki, Greece*
Artificial Intelligence and Information Analysis Lab, Aristotle University of Thessaloniki, Greece — *2018*

Vision and Sports Summer School — *Prague, Czech Republic*
Czech Technical University, Czech Republic — *2017*

Summer School on Image Processing — *Szeged, Hungary*
University of Szeged, Hungary — *2016*

Advanced Spring School for Students in Biology — *Budapest, Hungary*
Eotvos Lorand University, Hungary — *2015*

Advanced Summer School for Students in Medicine and Physics — *Szeged, Hungary*
University of Szeged, Hungary — *2015*

Skills

Languages	English proficient, Hungarian native, German pre-intermediate
Programming	Python, MATLAB, C, R, Maple
Licenses	B2 driving license, European Computer Driving Licence Certificate
Other	Team spirit, Ability to cooperate, Open-minded, Creativity, Logical thinking, Hard-working, Goal oriented

Other Activities

Girls in STEM Day workshop organization *Birmingham, UK*
INTELLIGENT ROBOTICS LABORATORY, SCHOOL OF COMPUTER SCIENCE, UNIVERSITY OF BIRMINGHAM *2019*

Mini and summer projectssupervisionof MSc students in Computer Science *Birmingham, UK*
INTELLIGENT ROBOTICS LABORATORY, SCHOOL OF COMPUTER SCIENCE, UNIVERSITY OF BIRMINGHAM *2018-present*

Teaching Calculus and Mathematics for fellow graduate and grammar school students *Szeged, Hungary*
2013-2017

Organization and presentation at the Girls in ICT event *Szeged, Hungary*
FACULTY OF SCIENCE AND INFORMATICS, UNIVERSITY OF SZEGED *2016*

International Mentor of the Stipendium Hungaricum foreigner students *Szeged, Hungary*
UNIVERSITY OF SZEGED *2015-2016*

Organization and laboratory presentation at the National Researcher's Night *Szeged, Hungary*
BIOLOGICAL RESEARCH CENTRE, HAS *2013-2016*

Organization of the annual Brain Awareness Week *Szeged, Hungary*
BIOLOGICAL RESEARCH CENTRE, HAS *2013-2016*