PETER SZABO

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EDUCATION

M.Sc., Image Processing and Computer Vision
September 2019 - Present

University of Bordeaux, Bordeaux
Universidad Autónoma de Madrid, Madrid
Pázmány Péter Catholic University, Budapest

Specialised Erasmus Mundus Joint Master's degree with a wide reach of topics. Current GPA of 4.55.

Courses: Biomedical Imaging, Biomedical Signal Processing, Augmented and Virtual Reality, Projective Geometry, Applied Bayesian Methods, Video Sequence Analysis, Multimodal Sensor Fusion, Image Processing, Deep Learning in Computer Vision, Acquisition Reconstruction and Inverse Problems, Augmented and Virtual Reality etc.

M.Sc., Computer Science
January 2019 - June 2019

Pázmány Péter Catholic University, Budapest

Specialization in Machine Learning for Data Science. GPA of 5.

B.Sc., Molecular Bionics Engineering
September 2015 - January 2019

Pázmány Péter Catholic University, Budapest

Molecular bionics is a discipline on the boundary of biology, molecular physics and chemistry, and computer technology. Graduated with GPA of 4.72.

Professional Core Material: Computer Technology, Electronics, Biophysics, Molecular Biology, Neuroscience, further specializations.

EXPERIENCE

MODIT zrt **June 2019 - January 2020**

Full-stack developer

- We were digitize the Hungarian Adoption System.
- My responsibility was to implement processes on both front and back end.

SZTAKI (Institute for Computer Science and Control) **February 2018 - January 2019**

Research Intern

- I was working at Machine Perception Research Laboratory part of a project called zMed.

PROJECTS

FaceQNet **January 2020 - Present**

- FaceQNet is quality assessment system for Face Recognition based on Deep Learning provided by Julian Fierrez programmed in tensorflow.
- My responsibility is improving its accuracy and making it more robust among for a wider range of scenarios.

3D Reconstruction of a Scene Through Multiple Images **June 2019 - January 2020**

- Creation of a 3D reconstruction pipeline: obtaining intrinsic parameters of a camera, extracting and matching feature points, and 3D reconstruction in MATLAB
- My report achieved the highest score in the cohort

Object Detection and Tracking **January 2020 - May 2020**

- Implementation various object tracking method such as Kalman filter and Histogram based object tracker in C++ and OpenCV.

Three Dimensional Reconstruction of the Hepatic Vessels **June 2019 - January 2020**

- Participating in a medical image processing project as a part of zMed. Responsible for the design and creation of the 3D reconstruction and labeling of the hepatic vessel structure based on CT images of the liver.

AWARDS

B.Sc degree with Honours Classification **January 2019**

3rd Place at the National Conference of Student Research Societies (OTDT) in Computer Vision Section **April 18. 2019**

- Biggest scientific event for students in Hungary since 1955.
- My research project (Three Dimensional Reconstruction of the Hepatic Vessels) achieved third place(Hungarian) in the Computer Vision section.

2nd Place at Scientific Students' Associations Competition (TDK) **December 13. 2018**

- Biggest scientific competition in Pazmany Peter Catholic University.
- Achieving second place in Medical Data processing section with my research project (Three Dimensional Reconstruction of the Hepatic Vessels).

Member of Talented Program at Pazmany Peter Catholic University **September 2017 - January 2019**

- The program aims to help students in their research life and provide them extra opportunities for their studies, as well as supporting them to get involved in the scientific community. The best 5% of students are selected and invited from the faculty.

EXTRACURRICULAR & VOLUNTEERING

Electrical Engineering Students' European Association, LC Budapest **June 2019 - June 2020**

Board Member, contact person

- EESTEC is an apolitical, non-governmental and non-profit organization for EECS students at universities, institutes and schools of technology.
- I was responsible for internal and international communication, information flow and cooperation within the network.

Tutor at my faculty **September 2016 - June 2017**

- Holding consultations from mathematical analysis and programming to the first year students at my faculty.

Organization of Faculty Events - Animator community **2015- 2019**

- Actively participated in the student-faculty, by co-organizing multiple events, such as job fair, introduction week or other faculty events.

LANGUAGES

- English: professional proficiency
- German: conversational
- Hungarian: native
- Spanish: basic

SUMMARY OF SKILLS

Software: Python, Java, Matlab, C++, HTML, Javascript, SQL, Angular, REST APIs

Technologies: Neural Networks, Convolutional Neural Networks, Generative Adversarial Networks, Image Classification, Object Detection, Object Tracking, Feature Extraction, Segmentation, Semantic Segmentation, Transfer Learning, Deep Learning

Frameworks: OpenCV, Numpy, Keras, PyTorch, Scikit

Tools: Git, Linux, Github

Soft Skills: Teamwork, Self-Organised Working, Presenting, Teaching, Organisation