



Lukas Uzolas

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EDUCATION

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| M.Sc. Image Processing and Computer Vision
PPCU, UAM, UBx | Sep. 2019 – Sep. 2021
Hungary, Spain, France |
| <ul style="list-style-type: none"> Fully funded Erasmus Mundus Joint Master Degree at the University of Bordeaux, Autonomous University Madrid, and Pázmány Péter Catholic University Thesis written at VCG SEAS, Harvard University Thesis topic: Meta-Learning for Domain Generalization with Style-based Parameter Prediction in Biomedical Image Segmentation [thesis] Graduated with an equivalent of first-class honours and distinction (4.97/5) | |
| B.Sc. Human-Computer-Interaction
University of Hamburg | Oct. 2015 – Jun. 2019
Hamburg, Germany |
| <ul style="list-style-type: none"> Fundamentals of computer science and psychology Active participation in the faculty as a student representative, hosting of events, and tutoring during the introduction week Thesis Topic: Evaluation of Grayscale Hand Gesture Segmentation with Fully Convolutional Neural Networks [thesis] Graduated with an equivalent of first-class honours and an outstanding degree (best of cohort) | |

EXPERIENCE

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| Master Thesis Research Intern (Remote)
VCG SEAS, Harvard University | Feb. 2021 – Jun. 2021
Boston, USA |
| <ul style="list-style-type: none"> Research internship to conduct my Master's thesis at Hanspeter Pfisters' Visual Computing Group, Harvard University under the supervision of Donglai Wei Image segmentation involving generative models and Domain Generalization with PyTorch and Tensorflow Due to the ongoing Covid19 pandemic, conducted remotely | |
| Research Intern
Medic | Jul. 2020 – Sep. 2021
Madrid, Spain |
| <ul style="list-style-type: none"> Research and implementation of algorithms extracting features of the eyes from high speed cameras with Matlab | |
| Working Student Backend Development
BOOM GmbH | Oct. 2018 – Feb. 2019
Hamburg, Germany |
| <ul style="list-style-type: none"> Web development in a diverse team and fast-paced environment Responsible for conceptualization and implementation of Backend applications with Node.js, Alexa, AWS, Python, Linux, REST APIS, and data visualization libraries | |

- Project, Working Student Fullstack Development** Feb. 2018 – Jul. 2019
Daimler AG Stuttgart, Germany
- Conceptualization of two intelligent car configurator Proofs-of-Concept for smart and Vans involving a chatbot based on IBM Watson
 - Responsible for software architecture and implementation of the Backend in NodeJs
 - Presentation of Proof-of-Concept on the Mobile World Congress 2018 in Barcelona
- Working Student Fullstack Development** Oct. 2017 – Jan. 2018
Senacor Technologies Hamburg, Germany
- Agile Development of software for internal use in the company
 - Programming with JavaScript, Vue.js, C#, and MySQL
- Student Supervisor in Software Development** Oct. 2016 – July. 2017
University of Hamburg Hamburg, Germany
- Supervision and examination of student's homework and preparation of educational materials
 - Teaching Object-oriented programming with Java, BlueJ, and Eclipse to students

AWARDS AND HONOURS

- M.Sc. Honours Degree (Distinction)** Sep. 2021
Honours degree by the Pázmány Péter Catholic University, grade: 4.97/5.
- Erasmus Mundus Master Scholarship** Sep. 2019
Fully funded graduate studies, with an acceptance rate below 5 percent
- Outstanding B.Sc. Degree in Human-Computer-Interaction** Jun. 2019
Best HCI degree in the summer semester of 2019 according to GPA

PUBLICATIONS

Deep Anomaly Generation: An Image Translation Approach of Synthesizing Abnormal Banded Chromosome Images, arXiv 2021.

Lukas Uzolas*, Javier Rico*, Pierrick Coupé, Juan C. SanMiguel, and György Cserey
*: *first authors*, [[arXiv](#)]
(In review)

Scale & Walk: Evaluation of scaling-based interaction techniques for natural locomotion in VR, Mensch und Computer 2018.

Boysen, Yannic*; Husung, Malte*; Mantei, Timo*; Müller, Lisa-Maria*; Schimmelpfennig, Joshua*; Uzolas, Lukas*; Langbehn, Eike;
*: *equal contribution*, [[paper \(German\)](#)]

Original title (German): Evaluation von skalierungsbasierten Interaktionstechniken zur natürlichen Fortbewegung in VR

CONFERENCE PARTICIPATIONS

- Conference on Computer Vision and Pattern Recognition** 2021
Student Participant
- European Conference on Computer Vision** 2020
Student Participant
- Mensch und Computer** 2018
Author and Student Volunteer

ADDITIONAL RELEVANT PROJECTS

- Face Manipulation through Projection of Facial Landmarks** 2021
- Projection of facial landmarks into pre-trained StyleGAN2 latent space and FAN with PyTorch [[github](#)]
- Banded Chromosome Segmentation Mask Generation** 2020
- Banding pattern extraction repository for Deep Anomaly Generation, written in Python and OpenCV. Can be used as a Python package or via command line [[github](#)]
- 3D Reconstruction of a Scene Through Multiple Images** 2020
- Implementation and report of a whole 3D reconstruction pipeline of a natural scene. The report received the highest grade in the cohort [[report](#)]
- Object Tracking/Localisation with the Kalman Filter** 2020
- Implementation of object tracking with the Kalman filter in C++ [[gitfront](#)]
- Replication-Study & Extension of PerceptionNet** 2019
- Implementation and replication study of PerceptionNet in Keras. Human activity classification based on temporal multimodal. [[github](#)] [[report](#)]

EXTRACURRICULAR AND VOLUNTEERING

- Class Representative** 2019 - 2021
- M.Sc. Image Processing and Computer Vision Hungary, Spain, France
- Organisation and communication between students and university entities
- Voluntary Tutor** Aug. 2018 - Jul 2019
- Fördern und Wohnen Hamburg
- Tutoring children from refugee families in maths, German, and English.
- Organisation of Faculty Events** Oct. 2015 - Jun. 2019
- University of Hamburg Hamburg
- Actively participated in the student-faculty by co-organizing the introduction week three years, and hosting different faculty events such as the yearly Christmas celebration and [hackathons \(German\)](#)

SKILLS

Languages: German (Native), English (C1), Lithuanian (B2), Spanish (A2)

Programming: Python, Javascript, Node.js, Java, MATLAB, C++ (Beginner), Databases, Web Development, Rest APIs

Frameworks: OpenCV, PyTorch, Keras, Tensorflow v.1, Scikit, Numpy, Matplotlib

Tools: Git, Linux, Windows, LaTeX, Command Line

Soft Skills: Teamwork, Self-organised Working, Presenting, Adaptability, Teaching, Organisation, Scientific Writing, Clear Communication

HOBBIES

Sports: Jogging, Tennis, Hiking, Snowboarding

Creative Programming: [Sinus Waves](#), [Dancing Deers](#), [Games involving my cousins](#)

Board Games, Pen and Paper