

# HUNOR LACZKÓ

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[📍 Barcelona, Spain](#)

## SUMMARY

I am currently pursuing a PhD in the field of Computer Vision working on **3D garment generation, animation and reconstruction**. I have a joint triple master's degree in **Image Processing and Computer Vision** and a bachelor's degree in **Computer Science Engineering**. I have also worked as a **C++ Software Developer**. Currently, I am looking for research stay or internship opportunities during my PhD studies.

## SKILLS

Programming	Python, C/C++, Java, MATLAB, SQL, C#, HTML
Software/Tools	Visual Studio, Visual Studio Code, IntelliJ IDEA, PyCharm, MATLAB, Microsoft Office, Latex Windows, Ubuntu, Robot Operating System (ROS) Docker, Google Cloud Platform, Amazon Web Services Git, Perforce, Jira
Frameworks	Tensorflow/Keras, Pytorch, Numpy, OpenCV
Technologies	Deep Learning, Neural Networks, Convolutional Neural Networks, Generative Adversarial Networks, Variational Auto-Encoders, Feature Extraction
Languages	English C2 (Expert), Hungarian (Native), Romanian and Spanish (Elementary)
Soft Skills	Team Player, Presentation, Organization, Teaching

## EDUCATION

May 2022- Present	<b>PhD, Computer Vision</b> <i>Universidad Autónoma de Barcelona (UAB), Barcelona</i> <i>Centre de Visió per Computador (CVC), Barcelona</i> <ul style="list-style-type: none"><li>• 3D garment generation, animation, reconstruction</li></ul>
Sept 2019- Jun 2021	<b>MSc, Image Processing and Computer Vision</b> Specialized Erasmus Mundus Joint Master's degree <i>University of Bordeaux (UBx), Bordeaux (3rd semester)</i> <ul style="list-style-type: none"><li>• Acquisition, Reconstruction, and Inverse Problems   IT Project Management   Deep Learning in Computer Vision   Variational Methods and PDEs and Optimization for Image Processing   Augmented and Virtual Reality</li></ul> <i>Universidad Autónoma de Madrid (UAM), Madrid (2nd semester)</i> <ul style="list-style-type: none"><li>• Applied Video Sequence Analysis   Applied Bayesian Methods   Vision for Multiple or Moving Cameras   People Detection &amp; Biometric Recognition   Tutored Research &amp; Development Project   Initiation to Research</li></ul> <i>Pázmány Péter Catholic University (PPCU), Budapest (1st semester)</i> <ul style="list-style-type: none"><li>• Multi-Modal Sensor Fusion and Navigation   Basic Image Processing   Data Mining and Machine Learning   Design Patterns   Numerical Analysis   Parallel Computing Architectures</li></ul>
Sept 2015- Jan 2019	<b>BSc, Computer Science Engineer</b> <i>Pázmány Péter Catholic University, Budapest</i> <ul style="list-style-type: none"><li>• Graduated with honors in the software technology track.</li></ul>

## EXPERIENCES

Jan 2021- Apr 2022	<b>Research Internship</b> <i>Centre de Visió per Computador (CVC), Barcelona</i> <ul style="list-style-type: none"><li>• 3D garment generation through surface decomposition</li></ul>
Jun 2018- Jan 2020	<b>C++ Software Developer</b> <i>Graphisoft, Budapest</i> <ul style="list-style-type: none"><li>• Developed new features for the company's flagship product ArchiCAD in a team of five.</li></ul>

## Sept 2016- **Teaching Assistant**

Jun 2017 *Pázmány Péter Catholic University, Budapest*

- Worked with Dr. Csörgő István, tasks included holding practice classes, consultations and helping with creating, conducting, and grading tests and exams.

## PROJECTS

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### Feb 2021- **3D garment generation through surface decomposition**

Jun 2021

- 3D to 3D garment generation with the main aspects concentrating on realism including high frequency details and dynamics

### Feb 2020- **Custom loss function for 3D Image segmentation to consider topographic information**

Jan 2021

- Ongoing project on improving existing 3D segmentation networks with a custom loss function which considers the topographic information of the objects.

### Oct 2017- **2D Mapping with LiDAR**

Jan 2019

- Familiarization with 2D LiDAR module and successful integration in ROS environment. Calibration with monocular camera.
- Creation of mapping module with LiDAR and SLAM to create 2D maps of the environment.

## CERTIFICATES AND WORKSHOPS

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### Certificates **Deep Learning Specialization (Coursera)**

- Neural Networks and Deep Learning | Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization | Structuring Machine Learning Projects | Convolutional Neural Networks Sequence Models

### **DeepLearning.AI TensorFlow Developer Specialization (Coursera)**

- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning | Convolutional Neural Networks in TensorFlow | Natural Language Processing in TensorFlow | Sequences, Time Series and Prediction

### **Amazon Web Services Fundamentals Specialization (Coursera)**

- Going Cloud-Native | Addressing Security Risk | Migrating to the Cloud | Building Serverless Applications

### **Developing Applications with Google Cloud Platform Specialization (Coursera)**

- Google Cloud Platform Fundamentals: Core Infrastructure | Getting Started with Application Development | Securing and Integrating Components of your Application | App Deployment, Debugging, and Performance

### **Reinforcement Learning Explained (Edx)**

- Introduction to Reinforcement Learning | Bandits | The Reinforcement Learning Problem | Dynamic Programming | Temporal Difference Learning | Function Approximation | Policy Gradient and Actor Critic

### Workshops **Deep Learning Workshop**

- A week-long intensive deep learning workshop focused on computer vision. Conducted by Dr. Kevin McGuinness (Dublin City University) and Dr. Diego Ortego (Dublin City University). Topics covered: Image Classification | Semi-Supervised Learning | Transfer Learning | Self-Supervised Learning | Semantic Segmentation | Saliency Prediction | Generative Models | Learning with Noisy Labels

## ACHIEVEMENTS & POSITIONS OF RESPONSIBILITY

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- Recipient of [FI Scholarship](#) for the PhD studies
- Recipient of [Erasmus Mundus Scholarship](#) for fully funded graduate studies.
- Recipient of New National Excellence Program scholarship ([UNKP](#) – Hungarian)
- Finalist in the Ericsson Programming Challenge 2015 (team competition)
- Helped organize computer science competition at university ([link](#) – Hungarian)
- Managed a [hostel](#) of 40 people as student president for 2 years

## HOBBIES

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- Interested in home automation and DIY, created RFID controlled locks, smart LED controllers
- Operate and maintain my own home media-, file-, web- server