

RAJMUND NAGY

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EDUCATION

KTH Royal Institute of Technology

MSc in Machine Learning

Stockholm, Sweden

Aug. 2019 – June 2021

ELTE Eötvös Loránd University

BSc in Computer Science

Budapest, Hungary

Sept. 2015 – Jan. 2019

EXPERIENCE

Research Engineer (part-time)

KTH, Division of Speech, Music and Hearing

Gustav Eje Henter's group, supervisor: Taras Kucherenko

- Working on a novel probabilistic gesture generation model based on normalizing flows
- With a focus on generating semantically motivated gestures

Stockholm, Sweden

Nov. 2020 – Present

Research Engineer (summer intern)

KTH, Division of Robotics, Perception and Learning

Hedvig Kjellström's group, supervisor: Taras Kucherenko

- Refactored and improved the source code of [Gesticulator](#), a neural network for gesture generation
- Began working on an interactive conversational agent with gesticulation capabilities

Stockholm, Sweden

June 2020 – Aug. 2020

Teaching Assistant

KTH, Artificial Intelligence course

- Evaluated students on the topics of HMMs and Search in AI
- Graded essays on the ethical aspects of AI, answered questions on discussion forum

Stockholm, Sweden

Jan. 2020 – Nov. 2020

C++ software engineer

evosoft Hungary

- Worked on a SCADA platform for Siemens in an English-speaking, remotely distributed scrum team
- Developed new features using C++11/14; designed and maintained integration tests
- Worked with single, redundant, and distributed systems deployed on Windows and Linux (Debian/CentOS)

Budapest, Hungary

May 2018 – Aug. 2019

RECENT PROJECTS

Latent Space Interpolation for Integrated Gradients ([link](#))

- Master's thesis project at KTH, RPL
- Working on improving Integrated Gradients in order to create better explanations
- The topic and the proposed framework is related to several computer vision tasks:
 - * Image segmentation, inpainting, deep generative models (GANs, normalizing flows)

Ongoing

GestureBot ([link](#))

- Continuation of my summer internship as part of an individual course at KTH
- Integrates a gesture generation network with a conversational platform into a Unity agent
- To be published at AAMAS 2021 as a Demonstration track paper

Jan. 2021

Evaluation of Grad-CAM explanations ([link](#))

- Group project for the Advanced Deep Learning course at KTH
- Implemented [Grad-CAM](#) and [Grad-CAM++](#)
- Reproduced most of the experiments from the original Grad-CAM paper
- Performed three novel experiments and suggested new evaluation metrics based on the literature

Oct. 2020

Spatial Temporal Graph Convolutional Networks for Action Recognition ([link](#))

- Group project for the Deep Learning course at KTH
- Reimplemented the [ST-GCN model](#) and evaluated it on a new dataset

June 2020

TECHNICAL SKILLS

Languages: Python, C++, *Matlab*, *C# (Unity)*

Developer Tools: Git, Visual Studio, VS Code, *Google Cloud Platform*, Microsoft TFS

Libraries: PyTorch, PyTorch Lightning, scientific python stack (e.g. matplotlib, pandas, sklearn, numpy)