## MLADEN BAŠIĆ

## **EXPERIENCE**

### Machine Learning Team Lead

SignAvatar

Jul 2023 - present

- Was in charge of developing and deploying application that generates train service information for the hearing impaired
- Developed machine learning models for machine translation from english to American Sign Langauge based on state-of-the-art research papers
- Developed and maintened microservice cluster with external API for translating multilingual speech to singlanguage in real-time

Microservice **Speech Recognition Speech Translation Unreal Engine** 

## Software Engineer

ydrive

## Jan 2023 - Mar 2023

- Implemented High Quality Shader that improved performance of neural rendering pipeline
- Implemented shaders that improved training time of neural rendering model
- Deployed shaders for use in Unreal Engine application

Cuda OpenGL **Neural Rendering** 

## Machine Learning Engineer

adout.ai

- Mar 2023 Jun 2023
- Designed prompts for both ChatGPT and MidJourney in ordered to automatically generate ads for customers business
- Developed post processing pipelines for improvement of human faces generated by MidJourney
- Used state-of-the-art image generation models to put customers product into Al generated background

Image processing MidJourney ChatGPT

## Machine Learning Engineer

Microsoft Developement Center Serbia

Mar 2021 - Mar 2022

- Worked on a model for premium feature upselling based on user actions in Word Online
- · Collaborated with software engineering team on feature extraction and model deployment
- Wrote queries for big data parsing from a preexisting database

Sequence Classification **Kusto Query** Microsoft Office

#### Software Engineer

Microsoft Developement Center Serbia

m Feb 2021 - May 2021

- Improved camera head position estimation software by implementing a complementary filter on head tracking system from HoloLens2 and Azure Kinect's head localization software
- Developed software pipeline for synthetic camera calibration, testing and 3D pose estimation
- Ran experiments using real-world calibration data and tested quality of intrinsic calibration after an airplane travel simulation

**Camera Calibration** Mixed Reality

- Palgrade, Serbia
- @ mladenbasic99@gmail.com
- github.com/basicskill
- in linkedin.com/in/basic-mladen

## **EDUCATION**

B.Sc. in Electrical Engineering and Computer science

University of Belgrade

**2018 - 2022** 

## **EDUCATIONAL WORK**

#### Senior Associate and Lecturer

pfe.rs

## 2018 - present

- Held lectures in Linear Algebra, Image Processing and Natural Language Processing
- Held workshops in Physics Simulation, Digital Signal Processing, Natural Language Processing and Machine Learning
- Supervised project: Hybrid Model for Sentence Completion and Bug Physics Simulation
- Supervised project: Teaching a bee to fly using genetic algorithm inside custo physics simulation
- Supervised project: Automatical license plate registration

## **Undergrad Teaching Assistant**

University of Belgrade

**#** 2020

- · Homework and final project grading
- · Conducting oral examinations

#### Member of ETF Robotics group

Renesas MCU Rally Faculty team 2019



- Developed physics simulation of model vehicle with noisy sensors and localization
- DC motor testing and attribute measuring

# SMALLER PROJECTS AND HACKATHONS

- SUMA MATF Hackathon: **Pollution Prediction**
- TUM-JA Hackathon: Crowdedness of Public Transport
- Word Recognition from Gyroscope Signals (MATLAB)
- Digital Circuit Simulator (C++)
- DataFlow Equation solver (C++)