MLADEN BAŠIĆ

- Belgrade, Serbia
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EXPERIENCE

Machine Learning Intern
Microsoft Developement Center Serbia 📅 Oct 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

Python | Sequence Classification | Kusto Query | Microsoft Office

Software Engineering Intern
Microsoft Developement Center Serbia 📅 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

Python | Camera Calibration | Mixed Reality

Assistant at Petnica Science Center
Department of Applied Physics and Electronics 📅 2018 – present

- Held lectures in Linear Algebra, Image Processing and Natural Language Processing
- Held workshops in Physics Simulation, Digital Signal Processing and Natural Language Processing
- Supervised project: *Hybrid Model for Sentence Completion*

Python | Linear Algebra | Signal Processing | Machine Learning

PROJECTS

Relative Camera Pose Estimation
Petnica Science Center Machine Learning Seminar 📅 summer 2020

- Developed a model that estimated relative change of camera position between two frames
- Model consisted of two identical AlexNets and a fully connected output layer which returns relative translation and rotation in quaternions
- Training was done on car driving dataset

Python | PyTorch | KITTI Dataset

Automatic Extractive Summarization of Multiple Documents
Petnica Science Center 📅 summer 2018

- Multi-document extractive summarization done on news articles
- Text ranking done using Recursive Neural Network that traversed through the sentence tree and scored every n-gram leaf to root
- Sentence selection was realized using greedy approach on scored sentences, discarding ones that have a set percentage of similar words

Python | TesnorFlow | DUC Dataset

EDUCATION

B.Sc. in Electrical Engineering and Computer science (expected)
University of Belgrade 📅 2018 – 2022

Signals and Systems Department
Ongoing GPA: 9.3 / 10

PROFESSIONAL SKILLS

Python	●●●●●
MATLAB / Octave	●●●●○
C++	●●●●○
Bash	●●●○○
Git	●●●○○

LANGUAGES

English	●●●●○
Serbian (*native*)	●●●●●

FACULTY WORK

Undergrad Teaching Assistant
Object Oriented Programing Course 📅 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 atribute measuring

OTHER

Hackathons

- SUMA MATF Hackathon: Pollution Prediction
  - basicskill/matf-hackathon
- TUM-JA Hackathon: Crowdedness of Public Transport
  - basicskill/tum-hackathon

Smaller Projects

- Word Recognition from Gyroscope Signals (MATLAB)
- Handwritten Digit Recognision (Neural Network from Scratch) (MATLAB)
- Digital Circuit Simulator (C++)
- DataFlow Equation solver (C++)