MARTIN STUDNA

SOFTWARE/MACHINE LEARNING ENGINEER   ⚲ PRAGUE, CZECHIA   ☎ +420775058619

DETAILS

Prague
Czechia
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Date of birth
16.6.1995

Nationality
Czech

LINKS

Linkedin

SKILLS

Python

Scikit-learn

Tensorflow

Machine Learning

Deep Learning

Azure MLOps

Databricks

Computer Vision

NLP

C# .NET

Javascript

LANGUAGES

English

PROFILE

I am a Software/Machine Learning Engineer. I have over 4 years of professional experience in software development. I would consider myself to be at senior level in programming languages such as Python, Javascript and C#. I hold a Master's degree in Artificial Intelligence and a Bachelor's degree in Computer Science from Charles University in Prague, Faculty of Mathematics and Physics. In AI I am primarily focused on Computer Vision and NLP tasks.

PROJECTS

Object recognition

My objective was to create a model that can estimate bounding boxes around street view house numbers in an image and also classify them.

https://github.com/martin-studna/street-view-house-number-recognition

Speech recognition

My objective was to implement a speech recognition engine for Czech language.

https://github.com/martin-studna/speech-recognition

Dialog Intent Classification

I was implementing a Feed Forward Network that matches intents with sentences.

https://github.com/martin-studna/dialog-intent-classification

Segmentation of neural cells from Fluorescent Microscopy

I was using U-Net architecture and its later modifications to segment neural cells from fluorescent microscopy. The research and development of the model were done as part of my work on my master's thesis and with the cooperation of the Czech Academy of Sciences for neurodegenerative diseases research.

https://github.com/martin-studna/neural-cell-segmentation

EMPLOYMENT HISTORY

Backend Developer at SIMPLIO TECH s.r.o, Prague
October 2021 — April 2022

full-time

Technology stack: .NET, Azure, Cosmos Db, Redis, SQL, Sendgrid

My objective was to develop a system that can aggregate functionalities of multiple crypto exchanges, for instance, Coinbase, Binance or Bittrex. The system consists of REST API that provides Simplio mobile app communication with exchanges that present information about current exchange rates or available swap routes. The second part of the software is cron, a program that creates scheduled tasks that update data in the database about crypto assets.
The communication between parts of the software is implemented with NServiceBus message broker. NServiceBus is also used for Saga pattern to implement distributed transactional system.

Computer Vision Research Engineer at Institute of Physiology, the Czech Academy of Sciences, Prague
September 2021 — April 2022

Contract

I was working on the master thesis with the collaboration of the Institute of Physiology, the Czech Academy of Sciences.
Development of the Computer Vision software that can detect certain biological anomalies from the microscopic images of the mouse brain tissue.

Using Azure Machine Learning for model deployment and training

Tensorflow, Python, Azure Machine Learning

Full-stack Developer at IBM, Prague
July 2019 — July 2020

full-time

- IBM Watson, IBM Discovery, NodeJs, VueJs
- Create backend or frontend application primarily for IBM Watson
- Projects:
- Vodafone: Tobi chatbot
- Storaenso chatbot
- Government of the Czech republic and eRouška: Virtual assistant Anežka - chatbot giving relevant information about the covid-19 crisis

.NET Developer at Qest automation, Prague
July 2018 — April 2019

full-time

- .NET Core, C#, ASP.NET, Docker, MongoDb
- Develop server-side application for home automation project
- Create API for communication between web, mobile apps and IoT devices

EDUCATION

MSc, Charles University, Faculty of Mathematics and Physics, Prague
September 2020 — September 2022

Artificial Intelligence course

- Machine Learning, Deep Learning
- Data Mining
- Neural Networks
- Evolutionary algorithms
- Multiagent Systems
- Data Structures
- Dialogue Systems
- Multiagent Systems
- 3D Computer Vision
- The Fundamentals of Complexity and Computability

BSc, Charles University, Faculty of Mathematics and Physics, Prague
September 2015 — September 2020

Computer Science course

- Calculus I-III, Discrete Mathematics, Linear algebra I-II, Combinatorics and Graphs
- Probability and Statistics, Propositional and Predicate logic
- Computer Networks, Introduction to UNIX, Unix administration
- C#, Java, C++ programming classes
- Computer Graphics, Digital Image Processing
- Principles of Computers, Computer Architecture
- Automata and Grammars theory,
- Non-procedural programming - Haskell, Prolog, Lisp
- Design Patterns

- Information security
- Compiler Principles