

# Matej Ciglenečki

email: matej . ciglenecki at gmail . com github.com/matejciglenecki

Computer Science student who is highly interested in deep learning, computer vision, and data science. Through my academic and work experience, I've developed excellent problem-solving capabilities accompanied by a strong sense of ownership. I'm fascinated by well-written libraries, software modularity, and design principles.

#### **Experience**

Oct 2020 - Oct 2021

Software Engineer - Memgraph

- designing SQL database and writing feature specs for Memgraph Cloud's backend
- implementing Memgraph Cloud's backend (node.js, TypeScript, Sequelize, postgres) writing unit and integration tests (Jest)
- setting up Elastic Stack on AWS EC2 to analyze application's logs from AWS CloudWatch
- creating educational lessons (Memgraph, Cypher)

July 2020 - Oct 2020

Software Engineer Intern – Memgraph

- implementing geographic graph data visualization in Memgraph Lab (Leaflet, vis.js)
- refactoring codebase (TypeScript, Angular)
- writing a summary blog post

July 2019 - Aug 2019

Technical assistant - Conty Plus

file parsing and data transformations (Python)

## **Education**

2021 - present

2017 - 2021

2013 - 2017

M.Sc Computer Science – Faculty of Electrical Engineering and Computing, Zagreb relevant courses: Deep Learning, Machine Learning, Statistical Data Analysis, Multivariate Data Analysis, Advanced Algorithms and Data Structures, Technology Entrepreneurship, Mathematical Finance, Business Intelligence

B.Sc Computer Science - Faculty of Electrical Engineering and Computing, Zagreb

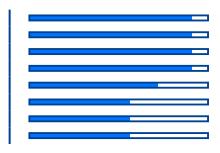
relevant courses: Design Patterns, Databases, Probability and Statistics, Artificial intelligence, Communication Networks, Network Programming, Fundamentals of Business Information Systems, R language

School of Electrical Engineering, Zagreb

#### **Skills**

machine and deep learning data science and statistics script languages web dev backend databases web dev frontend low-level programming object oriented programming PyTorch, scikit-learn, torchvision, PyTorch Lightning R, Python, numpy, pandas, matplotlib Python, bash node.js, Sequelize, TypeScript postgres, SQL, Memgraph, Cypher React, TypeScript, HTML, CSS

Java



### Workshops and projects

2022

LUMEN Data science competition - GeoGuesser Al Agent

- Led a team of 3 and got 2<sup>nd</sup> best model performance. The goal was to predict the location of Google Street View images in Croatia. Geospatial feature engineering, deep learning, and computer vision methods were used to achieve a mean error of 22km, measured as the great-circle distance from the true to a predicted location.
- The final solution included project documentation, technical documentation, and a local server which allowed inference on a trained model.

2022

2022

2021

2020 (1 week) 2019 and 2018 (1 week)

2019 (2 months)

Al BattleGround hackaton

The goal of the hackaton was to create an agent who would play against other agents in a turn-based game. At the beginning of the game, the agent initializes a creature pool, after which the agent decides which action to perform next (attack, switch positions of creatures or use an item) based on the game's state.

Implementation of driver fatigue detection in an EEG-based system - Data Science course project

Performed data analysis and feature extraction, trained multiple models, and predicted driver's fatigue with slightly better results compared to the research article.

#### Student success analysis - Statistical Data Analysis course project

Led a team of 4 in the Statistical Data Analysis course project written in R. Analysis methods, described in the final report, included t-tests, chi-squared test, Fischer's test, normality tests, f-tests, ANOVA, and linear regression.

Soft skills academy - leadership group

DataCrunch - data science academy

predicting bankruptcy of Croatian companies with machine learning techniques in R

AG04 - Spring Boot Summer School

- completing a Java Spring course
- building a web application with Java Spring in a 2-day hackathon in a group of 5 people

#### **Hobbies**

Cooking, body-weight exercising, running, reading, photography, learning, sideprojects

#### **Interests**

Computer science, software engineering, data science, deep learning, computer vision, machine learning, statistics, competitive programming, finance, leadership, team cohesion, communication, soft skills, personal development, health, privacy, music

