

Matej Ciglencečki

Data 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.

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Experience

July 2022 – Oct 2022

Software Engineer Intern – [Photomath](#)

- developed and deployed cloud services (**GCP, Datastream, Pub/Sub, Dataflow, Python**)

Oct 2020 – Oct 2021

Software Engineer – [Memgraph](#)

- developed SQL database and wrote feature specifications for Memgraph Cloud's backend
- implemented Memgraph Cloud's backend (**node.js, TypeScript, Sequelize, postgres**)
- wrote unit and integration tests (**Jest**)
- set up **Elastic Stack** on **AWS EC2** to analyze application's logs from **AWS CloudWatch**
- created [educational lessons](#) (**Memgraph, Cypher**)

July 2020 – Oct 2020

Software Engineer Intern – [Memgraph](#)

- implemented geographic graph data visualization in Memgraph Lab (**Leaflet, vis.js**)
- refactored codebase via design patterns (**TypeScript, Angular**)
- wrote a [summary blog post](#)

Education

2021 – present

M.Sc Data 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

2017 – 2021

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

2013 – 2017

School of Electrical Engineering, Zagreb

Skills

data science and statistics
machine and deep learning
script languages
web dev backend
databases
other skills

Python, numpy, pandas, matplotlib, R
PyTorch, scikit-learn, torchvision, PyTorch Lightning
Python, bash
TypeScript, node.js, Sequelize, FastAPI
postgres, SQL, Memgraph
git, Linux, Docker, Elastic Stack, C, Java, React



Workshops and projects

2022

[LUMEN Data science competition – GeoGuesser AI Agent](#)

- Led a finalist team of three. 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

[AI BattleGround hackaton](#)

- Worked in a team of four. Created a software agent which plays against other agents in a turn-based game. Game consists of multiple different characters, actions and modifiers. Based on the game's state, the agent tries to perform the optimal move (*attack, switch positions of creatures or use an item*).

2022

[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.

2021

[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](#) include t-tests, chi-squared test, Fischer's test, normality tests, f-tests, ANOVA, and linear regression.

2020

Soft skills academy – leadership group

2019, 2018

DataCrunch – data science academy

- predicting bankruptcy of Croatian companies with machine learning techniques in R

2019

AG04 – Spring Boot Summer School

- completed a Java Spring course
- developed a web application with Java Spring in a 2-day hackathon in a group of 5

Hobbies

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

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