

BC. JAKUB RADA

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SKILLS

Languages: Czech, English, Spanish

Interests: Running, Gym, Coding, Reading, Learning, Rap music

Programming Languages: C/C++, Julia, Python, Rust, Haskell, Java, Javascript/Typescript, Dart, SQL, HTML/CSS

Application Frameworks: Flutter, Vue.js, Angular, Django, NodeJS

AI/ML Tools: PyTorch, NumPy, scikit-learn, DeepMind Control Suite, Gurobi, PySAT, Jupyter

Skills and Traits: Adaptability, Precision, Quick learner, Attention to Detail, Clean code, Problem solving, Responsibility

EDUCATION

Czech Technical University in Prague 09/2022 - present
Artificial Intelligence Master

- Master programme following the Bachelor programme with focus on Artificial Intelligence and Machine Learning.

Korean Advanced Institute of Science and Technology 02/2023 - 06/2023
Exchange programme Master

- Exchange programme in South Korea during my first year of Master's studies. Apart from the new things I learned, it gave me plenty of experience into my future life.

Czech Technical University in Prague 06/2019 - 06/2022
Artificial Intelligence and Computer Science Bachelor

- Bachelor programme consisting of Math, Algorithms and Computer Architectures and Introduction to Optimization and Artificial Intelligence

Gymnázium, Praha 6, Nad Alejí 1952 09/2011 - 06/2019
General Education High School for students aiming to attend a university High School

- One of the best High Schools in the Czech Republic providing great fundamentals in Math, Natural Sciences and Social Sciences

PUBLICATIONS

The ALNS metaheuristic for the transmission maintenance scheduling 05/2023
Journal of Metaheuristics / Springer Nature Paper

EXPERIENCE

Cross-platform Mobile App Development (WeAllMeet.live) 06/2022 - present
SWEHQ | Part-time Software Engineering

- Flutter, Dart, Python, Django, Docker, Android, iOS
- Developing a cross-platform social mobile application in the Flutter framework with backend in Python and Django. We started from scratch and successfully released it to both App Store and Google Play.

Web Software Development (Kappka) 06/2021 - 11/2021
SWEHQ | Part-time Software Engineering

- Angular, Typescript, HTML, CSS, Javascript, NodeJS, Docker

- Development of a complex web application tool for mortgages for a big financial group. I worked on the front-end part of the application using Angular and Typescript.

ROADEF Challenge 2020

CIIRC CTU | Part-time

07/2020 - 06/2021

Researcher and Developer

- C++, C, Python
- Research and development of a solution for an international competition in discrete optimization. The problems were too large to be solved exactly so we had to derive a complex Metaheuristic algorithm to find approximate solutions.

Front End Web Developer

Scalesoft | Part-time

08/2019 - 12/2019

Software Engineering

- CSS, Typescript, HTML, Javascript, NodeJS
- Two-week internship before the first academic year, where I made both determinate and indeterminate progress indicators in pure CSS. This then translated into one semester long part-time job, where I worked on a web app.

PROJECTS

Solving a grid puzzle using SAT solving

Assignment in Logical Reasoning and Programming

09/2023 - present

FEE CTU

- Python, PySAT

Reconstructing 3D objects from a set of 2D images

Semestral project in 3D Computer Vision

09/2023 - present

FEE CTU

- Python, Matlab

Resume / Personal portfolio webpage

Free-time personal project

09/2023 - 10/2023

Personal

- Vue.js, Typescript, HTML, CSS

Soft Actor-Critic algorithm implementation

Semestral project in Mathematical Foundations of Reinforcement Learning

06/2023 - 06/2023

KAIST

- Python, PyTorch

Implementation of KAIST Educational C Compiler in Rust

Semestral project in Compiler Design

02/2023 - 06/2023

KAIST

- Rust

Developing a novel approach to Dimensionality Reduction using Graphs

Semestral project in Graph Machine Learning and Mining

05/2023 - 06/2023

KAIST

- Python, PyTorch

Double Oracle Algorithm for solving zero-sum normal-form games

Semestral project in Julia programming language University course

01/2023 - 02/2023

FEE CTU

- Julia

Comparing Exploration Methods in Partially Observable Stochastic Games

Bachelor Thesis combining Game Theory and Reinforcement Learning

09/2021 - 05/2022

FEE CTU

- Julia, LaTeX, Python

Evolutionary and Memetic Algorithms

Semestral project from Evolutionary Algorithms

09/2021 - 01/2022

FEE CTU

- C++, Python, LaTeX

Pong game for a microcontroller Semestral project in Computer Architectures	06/2020 - 06/2020 FEE CTU
• C	
Chess Game with GUI and simple artificial player Semestral project in Java	02/2020 - 05/2020 FEE CTU
• Java, JavaFX	
Flashcards web app ran in Electron Graduation project at High School	02/2019 - 05/2019 GNA
• Javascript, HTML, Python, CSS, Django	
Baltie 3 projects Graphical programming language Baltie 3 to learn C/C++	09/2008 - 09/2012 Extracurricular
• Baltie 3	

ACHIEVEMENTS

Daegu International Half Marathon 2023 10th place	04/2023 - 04/2023 Daegu International Marathon
Soul Marathon 2023 Relay 1st place	03/2023 - 03/2023 Seoul Marathon
Comparing Exploration Methods in Partially Observable Stochastic Games Dean's award for exceptional Bachelor Thesis	06/2022 - 06/2022 FEE CTU
ROADEF Challenge 2020 2nd place in the junior category + paper published in the Journal of Heuristics	06/2021 - 06/2021 EURO
Cambridge First Certificate in English Official B2 level certificate in English	06/2017 - 06/2017 Cambridge English
Baltie 2011 International Round 3rd place	06/2011 - 06/2011 SGP Systems
Baltie 2011 National Round 2nd place	05/2011 - 05/2011 SGP Systems