Bc. Jakub Rada

Prague, Czechia · 25/02/2000 · jakubrada@icloud.com · +420 604 730 409 · www.jakubrada.com

Skills

Languages: Czech, English, Spanish

Interests: Running, Gym, Learning, Coding, Reading, Hip-Hop music

Programming Languages: C/C++, Python, Julia, 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: Hardworking, 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 Insitute 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 consisiting 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

Memberships and Societies

Upsilon Pi Epsilon **02/2024**
Honorary Society Lifetime

Publications

The ALNS metaheuristic for the transmission maintenance scheduling **05/2023**
Journal of Metaheristics / 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 **07/2020 - 06/2021**
CIIRC CTU | Part-time 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 **08/2019 - 12/2019**
Scalesoft | Part-time 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

Weighted Feedback Arc Set Problem **05/2024 - present**
Semestral project in Combinatorial Optimization FEE CTU

- C++

Quantum Simulator (Quantum Circuits) **04/2024 - 05/2024**
Project in Quantum Computing FEE CTU

- C++

Reconstructing 3D objects from a set of 2D images **09/2023 - 01/2024**
Semestral project in 3D Computer Vision FEE CTU

- Python, Matlab

Resume / Personal portfolio webpage **09/2023 - 10/2023**
Free-time personal project Personal

- Vue.js, Typescript, HTML, CSS

Soft Actor-Critic algorithm implementation **06/2023 - 06/2023**
Semestral project in Mathematical Foundations of Reinforcement Learning KAIST

- Python, PyTorch

Implementation of KAIST Educational C Compiler in Rust **02/2023 - 06/2023**
Semestral project in Compiler Design KAIST

- Rust

Developing a novel approach to Dimensionality Reduction using Graphs **05/2023 - 06/2023**
KAIST
Semestral project in Graph Machine Learnign and Mining

- Python, PyTorch

Double Oracle Algorithm for solving zero-sum normal-form games **01/2023 - 02/2023**
FEE CTU
Semestral project in Julia programming language University course

- Julia

Comparing Exploration Methods in Partially Observable Stochastic Games **09/2021 - 05/2022**
Bachelor Thesis combining Game Theory and Reinforcement Learning FEE CTU

- Julia, LaTeX, Python

Evolutionary and Memetic Algorithms **09/2021 - 01/2022**
Semestral project from Evolutionary Algorithms FEE CTU

- C++, Python, LaTeX

Pong game for a microcontroller **06/2020 - 06/2020**
Semestral project in Computer Architectures FEE CTU

- C

Chess Game with GUI and simple artificial player **02/2020 - 05/2020**
Semestral project in Java FEE CTU

- Java, JavaFX

Flashcards web app in Electron **02/2019 - 05/2019**
Graduation project at High School GNA

- Javascript, HTML, Python, CSS, Django

Baltie 3 projects **09/2008 - 09/2012**
Graphical programming language Baltie 3 to learn C/C++ Extracurricular

- Baltie 3

Achievements

Daegu International Half Marathon 2023 **04/2023 - 04/2023**
10th place Daegu International Marathon

Soul Marathon 2023 Relay **03/2023 - 03/2023**
1st place Seoul Marathon

Comparing Exploration Methods in Partially Observable Stochastic Games **06/2022 - 06/2022**
Dean's award for exceptional Bachelor Thesis FEE CTU

ROADEF Challenge 2020 **06/2021 - 06/2021**
2nd place in the junior category + paper published in the Journal of Heuristics EURO

Cambridge First Certificate in English **06/2017 - 06/2017**
Official B2 level certificate in English Cambridge English

Baltie 2011 International Round **06/2011 - 06/2011**
3rd place SGP Systems

Baltie 2011 National Round **05/2011 - 05/2011**
2nd place SGP Systems