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

Software Engineering

SWEHQ | Part-time

- 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 Semestral project in Combinatorial Optimization	05/2024 - present FEE CTU
• C++	
Quantum Simulator (Quantum Circuits) Project in Quantum Computing • C++	04/2024 - 05/2024 FEE CTU
Reconstructing 3D objects from a set of 2D images Semestral project in 3D Computer Vision	09/2023 - $01/2024FEE CTU$
• Python, Matlab	
Resume / Personal portfolio webpage Free-time personal project	09/2023 - $10/2023Personal$
• 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 Learnign 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

 \bullet Julia

• Juna	
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 - $01/2022FEE CTU$
• 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 - $05/2020FEE CTU$
• Java, JavaFX	
Flashcards web app 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