Ing. Jakub Rada

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EDUCATION

Czech Technical University in Prague	**09/2025 - present**
Artificial Intelligence	PhD

Czech Technical University in Prague	**09/2022 - 06/2025**
Artificial Intelligence	Master (honors)

 – **Thesis:** Probabilistic Modelling for Robust Scoring and Estimation of Geometric Relations

European Summer in Artificial Intelligence	**07/2024 - 07/2024**
Artificial Intelligence	Master / PhD

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

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

 – **Thesis:** Comparing Exploration Methods in Partially Observable Stochastic Games

Gymnázium, Praha 6, Nad Alejí 1952	**09/2011 - 06/2019**
General Purpose High School	High School

PUBLICATIONS

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

EXPERIENCE

AI Engineering	**09/2025 - present**
SWEHQ | Part-time	AI Engineer and Architect

 – Typescript, NestJS, Python, Docker

 – AI engineer designing and building advanced Retrieval-Augmented Generation system for precise search and answering domain-specific questions based on private internal methodologies

Web and Mobile Software Development	**06/2022 - 09/2025**
SWEHQ | Part-time	Software Engineer

 – Flutter, Dart, Vue.js, Python, Javascript, Typescript, Django, Docker, Android, iOS

 – Medior software engineer building multiple complex web and mobile applications

Web Software Development	**06/2021 - 11/2021**
SWEHQ | Part-time	Software Engineer

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

 – Junior Frontend developer building a complex web app for a major financial group in the Czech Republic

ROADEF Challenge 2020	**07/2020 - 06/2021**
CIIRC CTU | Part-time	Researcher and Developer

 – C++, C, Python

 – Researcher and developer of a custom metaheuristic algorithm to solve complex combinatorial optimization problem

Front End Web Developer	**08/2019 - 12/2019**
Scalesoft | Part-time	Software Engineer

 – CSS, Typescript, HTML, Javascript, NodeJS

– Two-week internship before university translating into a part-time job during the first semester

HACKATHONS

Rakathon 2025   **04/2025**
OnkoApp, 2nd place   Prague, Czech Republic

– Web application helping doctors to clearly share intermediate results and educational information and manage and confirm appointments to reduce administrative burden therefore saving time for actual treatment.

Mistral AI Game Jam 2025   **01/2025**
Shyguy's Wingman, 6th place   Paris, France

– AI-powered game where user tries to convince the main character with text and voice to perform actions and reach the goal while the story and other characters develop according to an LLM

FELLOWSHIPS AND SOCIETIES

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

ACHIEVEMENTS

Comparing Exploration Methods in Partially Observable Stochastic Games   **11/2022** FEE CTU
Dean's award for exceptional Bachelor Thesis

ROADEF Challenge 2020   **06/2021**
2nd place in the junior category   EURO

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

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

CERTIFICATES

TOEFL iBT (116/120)   **09/2024 - 09/2026**
Reading 29, Listening 29, Speaking 28, Writing 30   2 years

Cambridge First Certificate in English (177/190)   **06/2017**
Reading 179, Writing 160, Listening 190, Speaking 165, Use of English 190   Lifetime

SKILLS

Languages: Czech, English, Spanish

Interests: Running, Lifting Weights, Learning, Coding, Reading

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

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

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

Skills and Traits: Dilligence, Adaptability, Perfectionism, Problem solving, Responsibillity