

ALEŠ PROKOP

Software Engineer

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Prague, Czech Republic

ABOUT ME

Software engineer at Microsoft on the MSBuild team, working on the performance of build tooling used by millions of .NET developers. Background in algorithms and discrete mathematics (master's with honors, Charles University) and research in computational voting theory. Interested in performance engineering, developer tooling and applying AI to engineering workflows.

WORK EXPERIENCE

Software Engineer, Microsoft | MSBuild

Apr 2026 – Present

- Cut binary logger overhead by 50% on Windows and Linux by optimizing serialization, speeding up builds for diagnostic runs
- Built a daily automated performance measurement pipeline and public dashboard covering dozens of build scenarios, which helped catch multiple regressions
- Contributed to multithreaded MSBuild by making tasks thread-safe
- Used generative AI to build performance regression detection

Software Engineer Intern, Rapid7 | Endpoint detection

Jun 2025 – Dec 2025

- Developed and maintained a Python-based automation framework integrated with AWS and Jenkins pipelines for testing the product
- Took ownership of the nightly release verification cycle, optimizing execution time and raising pass reliability above 90%
- Identified and fixed a critical logic failure in the installation process before production rollout

Research Collaboration, Charles University

Oct 2022 – Dec 2023, Nov 2025 – Dec 2025

- Collaborated on and presented results for the Czech Science Foundation (GAČR) 22-22997S project "Efficient and Realistic Models in Computational Voting Theory" and GAČR 25-17221S project "New Models of Trust and Election Robustness in Large Multi-Agent Systems"
- Implemented Python simulations for Opinion Diffusion Models and Election Robustness

EDUCATION

Master's Degree, Faculty of Mathematics and Physics, Charles University

Sep 2023 – Jun 2026

Discrete Models and Algorithms

- Graduated with honors
- Final GPA: 1.14 (scale 1–4, 1 = best)
- Diploma thesis: Computing Winner Robustness via Counting and Integration

Bachelor's Degree, Faculty of Mathematics and Physics, Charles University

Sep 2019 – Jun 2023

General Computer Science

- Bachelor's thesis: A Symmetric Homophily-Preserving Opinion Diffusion Model

KEY SKILLS

- **Programming Languages and Frameworks:** .NET, C#, Python, Java, Rust, R
- **Cloud & DevOps:** Azure DevOps, AWS, Jenkins
- **Other Skills:** AI Workflows (GitHub Agentic Workflows, Power Automate), Git, Jira
- **Spoken Languages:** Czech (Native), English (C1)