

PATRIK MACKERLE

Software Application Developer

Prague, Czech Republic

p.mackerle@gmail.com

Primary languages and frameworks

- Node.js
- Javascript
- React

Secondary languages and frameworks

- Remix.run
- Typescript

Infrastructure technologies

- MySQL
- MongoDB
- IBM Cloud
- RabbitMQ
- Docker
- Ansible
- Fly.io

Profile

I'm a full-stack developer with a mechanical engineering background, driven by a passion for problem-solving and innovation. Collaborating with like-minded individuals, I strive to deliver high-quality software on time, exploring new possibilities along the way.

Experience

Application Developer, Kyndryl, fully remote

03/2022 - now

Development of full-stack tooling used by SAP Managed Apps teams. Focusing on enhancing user and developer experience.

- Designed and implemented a **RabbitMQ**-based solution to efficiently send critical messages to relevant stakeholders during change management processes.
- Successfully debugged task processing code, resulting in a significant 70% reduction in CPU demand.
- Enhanced build scripts to optimize **React** and **Node.js** application hot reloading build times, improving the development experience, and implemented packaging strategies to minimize loading times for end-users.
- Developed code for disaster recovery (DR) test scenarios, saving change engineers valuable hours during critical change periods.

- Technologies primarily used: **Node, React, MongoDB, IBM Cloud, Docker, RabbitMQ, Ansible**

Software Developer, COMVERGA, Hradec Králové

03/2021 - 03/2022

Development of components and microservices related to payment services, billing and invoicing.

- Developed a **Node.js** microservice utilizing OCR technology to validate the accuracy of uploaded PDF documents, effectively minimizing service provider complaints.
- Extended an existing payment gateway by building additional functionalities and integrating with new payment providers (GoPay) to enhance payment processing capabilities.
- Collaborated with a front-end engineer to create a task processing engine, optimizing the onboarding process for new customers and improving overall efficiency.
- Led the development of a **TypeScript** proof-of-concept (POC) microservices architecture, demonstrating the numerous benefits and advantages of TypeScript to the team.

Technologies primarily used: **Node, Perl, MySQL, Docker**

Head of Development, ELLA-CS, Hradec Králové

02/2020 - 02/2021

- Led and managed a team of ten members, overseeing their day-to-day tasks, providing guidance, and ensuring smooth operations.
- Generated regular reports on team performance, project progress, and key metrics, providing valuable insights for stakeholders.
- Identified opportunities for process optimization, implementing improvements to enhance efficiency, productivity, and overall team performance.
- Led the research and development of a machine braided oesophageal stent

Development Engineer, ELLA-CS, Hradec Králové

05/2019 - 01/2020

- Facilitated the preparation of essential documentation by notified bodies for the development of class II and III medical devices, ensuring compliance with regulatory requirements.
- Led the planning, execution, and evaluation of mechanical tests for medical devices, ensuring adherence to quality standards and regulatory guidelines.
- Utilized **C/C++** to design and develop a proof-of-concept (POC) device as a viable substitute for a commercial PLC device, addressing our requirements more effectively.
- Collaborated closely with the research department to analyze patents and gather valuable insights for the development of new products, fostering innovation and staying ahead in the competitive market.

Research Fellow, Nuclear Research Institute, ÚJV Řež, Prague

11/2017 - 4/2019

Collaborated on the THS-15 project, focusing on the validation of the In-Vessel Melt Retention (IVMR) strategy for nuclear power plants with VVER 1000 reactors.

- Conducted experiments, meticulously collected data, and performed thorough evaluations to ensure accurate results.
- Utilized **Python** for data processing and analysis, facilitating efficient data extraction and interpretation.
- Prepared technical reports and conducted calculations to summarize findings and contribute to project objectives.
- Contributed to enhancing the safety and efficiency of nuclear power plants through advancements in the IVMR strategy.

Education

Czech Technical University Prague, Mechanical Engineering – MSc. 2013 - 2018

Completed a master's degree in Production and Material Engineering