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Languages and Technologies

- Proficient: C#; Python; SQL; Docker; Azure Cloud; Git
- Prior Experience: Java; TypeScript; C++; Kubernetes; Terraform; Keras; OpenMPI
- Natural Languages: English (Fluent), Slovak (Mothertongue), Nationality: Slovak (EU/EFTA)

Employment

Software Engineer **Loepfe Brothers (CH)** **Oct 2019 – Present**

IoT Solution for yarn sensors – C#.NET, Azure IoT
- Created services to process sensor run-time data on edge servers and send it to the cloud for further analysis.
- Support new colleagues with the understanding of our projects.

Cloud infrastructure – Terraform, Kubernetes, Azure, Docker, Helm
- Designed and implemented pipelines to deploy our infrastructure and services to the Cloud.
- Reduced time to set up CI/CD for new services by 50%.
- Help, advise, and educate team members on CI/CD topics.
- Improved and designed release processes for our projects to avoid regressions and increase release speed.

Production Data Collector – C#.NET, Angular, MongoDB
- Increased traceability of produced devices by implementing automatic upload of the system information.

Data analysis – Python, Bokeh
- Created a simulation of algorithms to compare their effectiveness in handling decreasing sensor accuracy.

Associate Software Engineer **Red Hat (CZ)** **Jan 2018 – Sep 2019**
- Optimized performance by 30% and memory use by 50% of an existing NLP model for support cases classification and prepared a Docker image with GPU support for easier deployment.
- Optimized performance and JVM stack usage of a query parameter processing in RESTEasy framework.
- Built features to obtain SSL certificates from Let's Encrypt and improved the user experience of CLI in the JBoss EAP.
- Provided technical guidance and mentorship to new trainees in the team.

QA and SWE Internships **Red Hat (CZ)** **Apr 2014 – Dec 2017**
- Developed various features for internal tools using Java and automated tests for security components (OpenSSH, Firewall, Network) in Red Hat Enterprise Linux with Bash and Python.

Education

Brno (CZ) **Brno University of Technology** **2013 – 2018**
- Master's degree in Bioinformatics and biocomputing, Faculty of Information Technology, June 2018.
- Bachelor's degree in Information Technology, Faculty of Information Technology, June 2016.

Technical Experience

Projects

- **Automation of MITM attack for SSL/TLS decryption** (2016). Tool for setup and startup of SSL/TLS interception. An article about it was published and presented at the Excel@FIT conference. Python, C
- **Customer support case analysis with deep neural networks** Updated, improved and compared existing NLP models as part of my Master's thesis. Python, Keras, NLP
- **CPU heat map simulation** (2017). Parallel simulation of a CPU heat map on a Czech supercomputer scaled on multiple CPUs across the cluster. The solution was the fastest in class. C++, OpenMPI
- **Collaborative whiteboard** (2015). Whiteboard where multiple users can view and simultaneously draw with each person's edits synchronized. Javascript, WebSockets
- **Depth map calculation from stereo image** (2018). With a teammate, we implemented various local and global methods to calculate depth maps from stereo images. Python, OpenCV