Jakub Cerny

Software Engineer | DevOps Enthusiast | Web developer

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Projects

FLIGHT LOG | GitLab CI/CD | Docker | DevOps

2024

- In this practice Java project, I gained hands-on experience with GitLab CI/CD for automating tests, building the project, and creating Docker images and containers, which were then stored in the GitLab Container Registry. I also worked within an OpenStack environment, using Ansible to create a Playbook that I ran on a controller virtual machine in the school's cloud.
- The Playbook prepared the environment of the target (managed) VM, logged into the registry and pulled the necessary Docker image. From this image a container was launched, which could be accessed via the VM's IP address — allowing full use of the running Java application on the school cloud.

FIT-EXCEL | C++

2024

- A semester project in which I created a simplified version of Excel. The program allowed for efficient data storage in a table. If the input was an expression (starting with "="), it was stored in a polymorphic abstract syntax tree (AST) structure, making future evaluations faster than repeatedly calling the parser.
- The program also allowed the table to be saved in hexadecimal format to a file and subsequently loaded from the file.

STOPS | JavaScript

2024

- The code handles fetching data about public transportation stops, followed by searching among them and displaying information about platforms and routes, including suggestions for similar results.
- It utilizes DOM manipulation and asynchronous functions to load the data. I fetched public transportation stop data from a test API and provided users with an interactive interface to search for stops and display the exact coordinates of platforms.

TMB – CITYSCAPE | Python | Tkinter | Planning | Project management

2024

- A semester project building upon another student's thesis, which involved deploying a Tactile Matrix Box (TMB) on the university campus. The TMB processed data from ArUcO cards (similar to QR codes) placed on a table, using a mounted camera.
- Our team developed a Python server that received this data and implemented the logic for evaluating the cards using the Tkinter Python library. The system then visualized buildings and evaluation results, projecting them back onto the table using a projector.

GALACTIC SHIPPING COMPANY | OntoUML | UML | BPMN | DEMO | OCD

2024

- A semester project simulating a galactic transport company. It addresses mission planning, cargo transport, and ship maintenance using ontological modeling, UML, processes, and transactions.

Skills

PROGRAMMING

Proficient: C++

Experienced: JavaScript • C • Python • LaTeX • HTML • CSS • PHP • SQL

Familiar: Java • Shell • Assembly • TypeScript • C#

LIBRARIES/FRAMEWORKS

Node.js • Symfony • Tkinter • STL

TOOLS/PLATFORMS

Git • GitLab • DevOps • GanttProject • Docker • UML

Education

FACULTY OF INFORMATION TECHNOLOGY, CTU IN PRAGUE

Bachelors's degree

September 2022 - Present (expected graduation: 2025)

Certificates

ENGLISH

C1 Advanced – Cambridge English
Score: 200 Issued: Jan 2022
Verify Credentials (link)
Verification ID: B7256247,
Centre Ref: CZ101 5060