Mads Ørnfeldt Wolf Jespersen

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Education

IT University of Copenhagen   Aug 2021 - Jun 2023
M.Sc. Computer Science   *Copenhagen, Denmark*
- **Thesis Topic**: Submersible robot designed to alter it's shape to manipulate buoyancy, facilitating the precise detection of interfaces between different liquids.
- **Relevant Coursework**: Advanced robotics(Python), How to make almost anything, Devops (C#), Internet of things (Python), Graphics Programming (C++), Probabilistic Programming (python).

IT University of Copenhagen   Aug 2018 - Jun 2021
B.Sc. Computer Science   *Copenhagen, Denmark*
- **Thesis Topic**: A mesh-based robot employing force sensors and motors to manipulate objects within a network of interconnected strings.
- **Relevant Coursework**: Data Structures and Algorithms (Java), Security, UX and Web Programming (JavaScript), Operating Systems (C), Databases (SQL), Distributed Systems (Java), Competive Programming (C++).

Experience

cVation   July 2021 - Present
Software Engineer   *Copenhagen, Denmark*
- Developed scalable C#/ASP.NET solutions using Microsoft Azure and front-end technologies like TypeScript and Angular.
- Worked within small teams of 5-8 developers based in Copenhagen, focusing on Microservices, DevOps, and Test Driven Development.
- Used Agile/Scrum flavours tailored to the team, client and project needs.

IT University of Copenhagen   Aug 2020 – July 2021
Teaching Assistant   *Copenhagen, Denmark*
- Assisted with various courses, including Introduction to Database Systems, Mobile and Distributed systems, and StudyLab.
- Responsibilities included guiding, grading, and helping students with their projects.
- StudyLab work included making supplementary lectures for difficult subjects from the main courses and helping students with any study related struggles.

Projects

MemeAPI | *C#, ASP.NET, EF Core, React, Typescript, Postgres* *MadsWJespersen/Memeapi* MadsWJespersen/MemeFrontend
- Developed backend and frontend applications for uploading, storing and generating random memes using C#, ASP.NET, EF Core, React, and TypeScript.
- Created a Discord bot in Python for community engagement features like voting and scheduling posts.
- Utilized Caprover, a Platform as a Service, for automated deployment with Docker images.

Home-made Home automation | *Python, Flask, C, LoRaWAN, Zigbee, IOT* *MadsWJespersen/ClownAPI*
- Developed a python server for interfacing with smart devices for lights, speakers, tv, alarms etc.
- Decoded Infrared protocols to replay commands from microcontrollers, replacing traditional remotes.
- Employed communication protocols like ZigBee, LoRaWAN, Bluetooth, and IR.

Technical Skills

Languages: C#, C, C++, Rust, Java, Scala, SQL, Python, TypeScript, JavaScript, F# (ML Dialects)
Technologies: Visual Studio, Linux, Microsoft Azure, Docker, ASP.NET, PostgreSQL, Github actions/Azure pipelines
Concepts: Programming, DevOps, CI/CD, Agile, IOT, Robotics, 3D modeling, 3D printing, Machine learningm, Unit Testing