Michael Udo Thamm

Professional Experience

DevOps Engineer
riskine GmbH, Austria

10/2022 - 11/2023

- Managed AWS clusters ensuring high availability for applications
- Substantial work with Docker, Python, GitLab, Kubernetes, IAM, Git
- Designed and integrated RESTful web microservices for SaaS, FinTech products
- Conducted MySQL migrations and CI/CD projects as a Global System Administrator
- Piloted Terraform Azure IaaC and the integration of Microsoft InTune MDM/MAM
- Integrated Traefik/Keycloak SSO, authentication flows and scalable system architecture

Software Developer
Kinarm, Canada

08/2021 - 08/2022

- Java/Python backend programming for integrating robotics, eye-tracking, and asynchronous computing
- Lead the InfoSec team to complete the company's first ISO 27001 certification
- MATLAB/Simulink programming for neuroscience robotics for haptic and robotic feedback
- Assembly and integration of Linux Ubuntu and Windows Server 2022 host servers
- On-site installation and collaboration with neuroscience researchers using Kinarm robotics

Controls Specialist
Brave Control Solutions, Canada

08/2018 - 07/2021

- IIoT asset data collection project for Ford using MQTT broker and Siemens Simatic IPC
- ABB Robot programming in Rapid to synchronize adaptive welding
- Audit Chrysler assembly plants for network integrity and compliance using Fluke technology
- Successfully programmed and integrated 2 modular construction projects to $\pm$ 0.2mm global tolerance
- Commissioned mechatronic projects in Mexico, USA, Canada

Controls Design - Intern, University of Windsor
Valiant Machine & Tool Inc., Canada

05/2017 - 08/2017

- Programmed PLC weld cells using Rockwell, RSLogix
- Planned and designed for industrial-sized controls integrations

Electrical Assembly
EnerQuest, Canada

06/2016 - 08/2016

- Audited wiring diagrams for fault prevention
- Assembled high voltage E-Houses for high power transmission (30 kV)

Certifications

AWS Certified Solutions Architect - Associate (SAA-C03)
Amazon Web Services Training and Certification

4/2024

Education

Ma.Sc. - Electrical & Computer Engineering (Part-Time)   *08/2019 - 05/2023*
Charge Labs - University of Windsor, Canada

- Worked within a Tier 1 Canada research chair lab for electrified vehicles
- Python multi-objective genetic algorithm optimization of high-speed linear induction motors
- MATLAB/Simulink modelling of motor performance parameters at various operating conditions
- Drive-cycle testing and practical validation of modelling results
- 4-month masters-level courses:
    - Global Optimization (neural networks)
    - Adv Elec Veh Powertrain
    - Adv. Traction Motors & Drives
    - Adv. Energy Storage Systems

Ba.Sc. - Electrical & Computer Engineering, Minor in Mathematics   *08/2015 - 08/2019*
University of Windsor, Canada

- Capstone Project - Linear induction motor integration for SpaceX-Hyperloop competition

Related Experience

Autonomous Python ML Quadcopter   *08/2023 - Present*
GitHub Project

- Designed the electrical, mechanical, and software integration with a budget of $1,000
- Spatial awareness using a Raspberry Pi and an Oak-D camera controlled via Python DroneKit & openCV
- Autonomous flight routines controlled via MAVLink and ArduCopter

Propulsion Team Lead (University of Windsor Team)   *05/2017 - 07/2020*
SpaceX - The Hyperloop Pod Competition, USA

- Designed and integrated the novel linear induction propulsion system from scratch
- Weekly design reviews with SpaceX engineers and was congratulated personally by Elon Musk
- Led a team of engineering students to rank among the top 21 finalists worldwide (2% of applicants)
- Optimized the propulsion system with Python's SciPy module

Language Skills

English - C2	German - C2	French - A2	Spanish - B1

Profile of Technical Skills

Engineering Tools	**ANSYS Electronics, Fusion 360, 3D-printing, Raspberry Pi, Arduino, AutoCAD, ArduPilot**
Programming	**Python**, **Java**, **C/C++**, **MATLAB/Simulink**, **PHP**, **Golang**, **Powershell**, **Bash**, **PLC**
Dev Tools	**Version Control** (*Git, Subversion*), **Virtualization** (*VMs, Docker*), **CI/CD** (*GitLab CI, GitHub Actions*), **IaaC** (*Terraform*), **Kubernetes**
Cloud Software	**Azure Stack**, **GitHub**, **GitLab**, **AWS IAM**, **Jira/Confluence**, **Keycloak**, **Traefik**
Operating Systems	**Linux** (*Ubuntu Server & Desktop, Raspbian, Kali*), **Windows** (*Server 2012, 2016, 2022*)