Christopher Siller

Software Engineer, M.Sc.

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Up-to-date version of CV is available at
https://ChriSil.github.io/cv_v2

Python	●●●●	C, C#	●●●●	TensorFlow	●●●●	ROS	●●●●	MatLab	●●●●	Kubernetes	●●●●
C++	●●●●	Rust	●●●●	PyTorch	●●●●	Docker	●●●●	Linux	●●●●	NodeJS	●●●●

I'm a Software Developer with over four years of professional experience. At the moment, I'm working on a fascinating project in Tirol, Austria. Our focus is on using Big Data and Data Science to improve the performance and dependability of industrial machinery. I have a strong interest in the field of Machine Learning and its potential to revolutionize various aspects of our society.

Professional Experience

Apr 2022 - Present

Ferchau Engineering, Innsbruck, AT

Software Engineer

Part of an interdisciplinary team of Engineers, Data Scientists and Developers, creating tools to enhance the reliability of industrial engines. The team's interest revolves around leveraging machine learning techniques to extract new insights from the data at our disposal.

- Processing and analyisis of machine and machine related data with Pandas/NumPy/SciPy.
- Developing Data Visualization Interfaces using Flask/Dash/Plotly.
- Backend Development and Data Availability with ClickHouse/Prefect/AWS/Lambda/SQL

`Python` `AWS` `Docker` `Kubernetes` `Pandas` `Numpy` `Dash`

Oct 2018 – Oct 2021

Hatch Ltd., Portland, OR, USA

Software and Systems Engineer

Part of the Rail Systems Engineering group. Responsibilities revolved mainly around development and application of TrainOps© , Hatch LTKs proprietary operations and electrical network simulation software, as well as some related field work.

- TrainOps Development: feature implementation,beta testing, real world application.
- Postprocessing and analysis of simulation results, working on new approaches to meet high data volumes.
- Acquisition and preprocessing of field data to build simulation scenarios.

`C++` `Python` `MatLab`

Nov 2015 – Dec 2017

Siemens Transmission Solutions,, Erlangen, Germany

Working Student, R&D

R&D Team member, building a test facility for a high voltage DC Switch. My task was to build a virtual workbench to allow remote charging, testing and monitoring, as well as test result analysis.

LabView C++ MatLab

Oct 2014 - Jul 2015

Siemens Rail Electrification, Portland, OR, USA

Trainee, Project Engineering

Introduction to technical project management. Assisted in installing inspecting DC Substations. Facilitated automated Factory Acceptance Test (FAT) workbench for Rectifiers and DC Switchgear.

LabView MatLab Siemens NX

Jun 2012 - Sep 2014

Siemens Infrastructure and Cities,, Erlangen, Germany

Working Student, IT Infrastructure

Working Student in part time, helping on-site with user IT issues, migration of Operating Systems, maintenance and migration of databases and server environments.

SQL Linux VBA SharePoint Access

Education

Master of Science, Maschinenbau, Friedrich Alexander Universität Erlangen-Nürnberg [2015 - 2018]
Bachelor of Science, Maschinenbau, Friedrich Alexander Universität Erlangen-Nürnberg [2011 - 2015]

Thesis work

Masters Thesis

"Software development to calculating flight trajectories for autonomous multicopters in intralogistics"

- This project kickstarted my passion for software engineering, especially in utilizing Open Source resources. I was tasked with building the backend for an autonomous fleet or drones, and the integration of position data into flight trajectory calculations.
- Intrafly Project, University of Erlangen

C++ Python ROS

Project Thesis

"Fabrication of artficial muscles using the Aerosol-Jet-3D-Print method"

3D Print Aerosols PLC

Bachelors Thesis

"Experimental and simulative analysis of thermally conductive polymers in high power LED-systems"

FEM Analysis Thermal Condictivity

Additional Experience

- Some of my interests and hobbies revolve around the theory and the intricacies behind machine learning, the open source community, competitive programming, , and customizing Linux Distributions and Kernels.

  Python AWS Polly ChatGPT Arch Linux PyTorch

- (Currently Semi-active) Involvment in the NNFS community. This is an effort to teach understanding of Neural Networks by building them from scratch, using Python's NLTK (Natural Language Toolkit).
  - Neural Networks from Scratch

    Python NumPy Anaconda PyTorch

- In 2018, I became Registered Yoga Teacher (RYT 200) with Yoga Alliance USA. At the moment, I do not actively teach Yoga.
  - RYT @ Yoga Alliance

- I am an active member of the Academic Alpine Club Munich (AAVM) where I serve as the current President. In my free time, I like to organzie climbing and mountaineering trips, and I occasionally write about them.
  - Akademischer Alpenverein München (Web content update in progess.)