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

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

I'm a Software Developer with four years of professional experience, currently working in an interdisciplinary team focused on utilizing Data Science to enhance the reliability of industrial machinery. This project involves bringing Machine Learning to the industry in Tirol, Austria. 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 machinery. My particular 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]

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"

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3D Print   Aerosols   PLC

Bachelors Thesis

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

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FEM Analysis   Thermal Condictivity

Additional Experience

- Some of my interests and hobbies revolve around GitHub and the open source community, competitive programming, machine learning algorithms, and customizing Linux Distributions and Kernels.
  `Python` `JavaScript` `NodeJS` `Arch Linux` `AWS Polly` `TensorFlow`
- (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`
- Masters Thesis: "Software development to calculating flight trajectories for autonomous multicopters in intralogistics"
    - This project kickstarted my passion for software engineering, specifically in regards to utilizing Open Source resources. I was tasked with building the backend for our drone fleet, and the integration of position data into the drone's calculations for its flight trajectory.
    - [Intrafly Project, University of Erlangen](#)
      `C++` `Python` `ROS` `Embedded Linux`
- Registered Yoga Teacher (RYT 200) at Yoga Alliance USA. I do not actively teach Yoga at the moment.
    - [RYT @ Yoga Alliance](#)

- I am an active member of a few German and American Alpine Clubs. I sometimes write about my trips for my local sections.
    - [The American Alpine Club, Oregon Section](#)
    - [Deutscher Alpenverein, Sektion Karlsbad](#) (Web content outdated.)
    - [Akademischer Alpenverein München](#) (Web content outdated.)