

# Christopher Frederik Tibaldo

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EDUCATION	<b>ETH Zürich, Master Computer science</b>	Feb. 2022 - Aug. 2024 (est.)
	<ul style="list-style-type: none"><li>• <b>Major:</b> Secure and reliable systems</li><li>• <b>Minor:</b> Computer Vision</li></ul>	
	<b>ETH Zürich, Bachelor's Program Computer science</b>	Sept. 2017 - Dec. 2021
	<b>Cantonal Science High School: Liceo Lugano 1</b>	Aug. 2016
ACADEMIC PROJECTS	<b>Master:</b>	
	<ul style="list-style-type: none"><li>• <b>Master thesis:</b> Investigating weaknesses in GNSS systems. "Distributed GNSS Spoofer for Multi-location Spoofing"<ul style="list-style-type: none"><li>– Analyzing GPS protocol, emulation using GNU-Radio</li><li>– Implementation using Software Defined Radios (SDR)</li></ul></li><li>• <b>Semester project:</b> Mixed Reality visualization of sensor data from HEAP autonomous excavator<ul style="list-style-type: none"><li>– C++ ROS package, streaming LIDAR and GPS data from autonomous excavator</li><li>– Microsoft Hololens 2 interface via Unity, written in C#, using MRTK</li></ul></li><li>• Identifying failed size-optimizations in assembly [Python, C]</li><li>• ACME client: automatic TLS certificate requesting and renewal system [Java]</li><li>• Mixed Reality tool for terrain modelling using Microsoft Hololens [Unity, C#]</li></ul>	
	<b>Bachelor:</b>	
	<ul style="list-style-type: none"><li>• <b>Bachelor thesis:</b> VR interface for Grasshopper (Architectural design tool, which via graphical programming language enables parametric structure design)<ul style="list-style-type: none"><li>– VR interface in Unity, using C# and Windows Mixed Reality Toolkit (MRTK)</li><li>– C# plugin for Grasshopper</li></ul></li></ul>	
PERSONAL PROJECTS	<ul style="list-style-type: none"><li>• Exotic Chess Game: Android game (not published) with custom chess boards [Unity, C#]</li><li>• Publibike-tracker: Tracking movements of Publibikes around Switzerland [Python, JavaScript]</li><li>• Presentatron: Tool to train holding presentations in front of crowds, using VR headset [Unity, C#.]</li></ul>	
	Visit <a href="https://tibaldo.ch/projects">https://tibaldo.ch/projects</a> for further details.	
EXTRACURRICULAR	<ul style="list-style-type: none"><li>• <b>Founding board member "VELOVE Schweiz"</b></li></ul>	2022-2023
	<ul style="list-style-type: none"><li>– Responsible for creating and maintaining website and wiki (<a href="http://velovezh.ch">velovezh.ch</a>)</li></ul>	
	<ul style="list-style-type: none"><li>• Board member VELOVE</li></ul>	2019-2022
	<ul style="list-style-type: none"><li>• Sailing instructor Lugano Sailing Club</li></ul>	Summers 2017-2019
LANGUAGES	German	Native speaker
	Italian	Native speaker
	English	Excellent
	French	Intermediate
TECHNICAL SKILLS	Programming languages	<b>Robust:</b> Java, C, C++, C#, Python <b>Limited proficiency:</b> SQL, Haskell, Matlab
	Programming tools	Docker, Unity, Git, ROS (Robotic Operating System)
	Operating systems	GNU/Linux, Windows
	Internet/Design	JavaScript, HTML/CSS