

# LUKA STRIZIC

🏠 Zürich, Switzerland (B permit)

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## WORK EXPERIENCE

<b>GOOGLE</b>	<b>Software Engineer</b>	Oct 2018 – Present	Zürich, Switzerland
Google Shopping. Working on the storage and processing infrastructure central to all of Shopping. We are implementing large-scale systems in C++.			
<b>AMPHINIC TECHNOLOGIES</b>	<b>Software Engineering Intern, DSP</b>	Jul 2018 – Aug 2018	Zagreb, Croatia
Implemented a low-density parity-check (LDPC) decoder of satellite signals and researched other implementations on a GPGPU platform using CUDA.			
<b>SWIFT NAVIGATION</b>	<b>Software Engineering Intern, Firmware</b>	Dec 2017 – Mar 2018	San Francisco, California, USA
Added CAN bus and NMEA2000 support to the Piksi Multi and Duro GNSS Receivers.			
<b>GOOGLE</b>	<b>Software Engineering Intern, Networking</b>	Aug 2017 – Dec 2017	Madison, Wisconsin, USA
Platforms team. Worked on a low-level, low-latency, high-performance networking engine in C++. It is used in Google's datacenters supporting big products that you've definitely heard of. The result of the internship was successfully deployed into production.			
<b>UNIVERSITY OF COLORADO BOULDER</b>	<b>Visiting Research Scholar</b>	Feb 2017 – Aug 2017	Boulder, Colorado, USA
Department of Aerospace Engineering Sciences, Colorado Center for Astrodynamics Research. Worked under Prof. Dennis Akos in support of his GNSS radio-frequency interference detection and localization research. Implemented a crowdsourced GNSS jammer detection system with elements such as a high-performance software-defined radio USB host in C++, an Android app to collect GNSS observables and a GNSS measurement processing backend in Python.			
<b>GOOGLE</b>	<b>Software Engineering Intern, Compiler</b>	Jun 2016 – Sep 2016	Zürich, Switzerland
Search Infrastructure team. Designed and implemented a JIT compiler in C++, using LLVM as the backend, for an internal Lisp-like language used for structured queries.			
<b>SARTURA</b>	<b>Software Engineering Intern, Embedded</b>	Jul 2015 – Nov 2015	Zagreb, Croatia
Lead the development of an extensible CWMP/TR-069 client (remote router management) in C, targeting the OpenWrt router platform. Passed on the know-how to other team members after project kick-off.			
<b>DEGORDIAN</b>	<b>Software Engineering Intern, Backend</b>	Sep 2013 – Jun 2015	Zagreb, Croatia
Worked on the backend of a realtime media monitoring service, Mediakit, in C++, Java and PHP. Infrequently performed simple sysadmin tasks on several CentOS servers.			
<b>UNIVERSITY OF ZAGREB</b>	<b>Student Assistant</b>	Oct 2011 – Jun 2015	Zagreb, Croatia
Held office hours for other students and/or supervised laboratory exercises in courses: Computer Aided Design of Electronic Systems, Electronics 1, Communication Networks, Algorithms and Data Structures, Digital Logic, Programming and Software Engineering.			

## EDUCATION & PUBLICATIONS

<b>UNIVERSITY OF ZAGREB</b>	<b>MSc Computer Engineering</b>	Sep 2018	Zagreb, Croatia
Master thesis	Deep Learning Accelerator for FPGA-based Heterogeneous System with RISC-V Processor		
<b>LULEÅ UNIVERSITY OF TECHNOLOGY</b>	<b>MSc Space Instrumentation</b>	Nov 2017	Kiruna, Sweden
<b>UNIVERSITY OF WÜRZBURG</b>		1 <sup>st</sup> semester of 2015/2016	Würzburg, Germany
Master thesis	Strizic, Luka, Akos, Dennis M., Lo, Sherman, "Crowdsourcing GNSS Jammer Detection and Localization", <i>Proceedings of the 2018 International Technical Meeting of The Institute of Navigation</i> , Reston, Virginia, January 2018, pp. 626-641. 📄		
VISTA	Designed and implemented a GPS payload for a student-built sounding rocket, SERA 3, that was successfully launched on April 26 <sup>th</sup> 2017 from the Esrange Space Center in Kiruna, Sweden. Lead embedded software and PCB/electronics design. Luka Strizic, Guillem Antoja, Hristo Hristov, Anjana Jegatheesan, Angele Pontoni, Tejaswi Seth, Hilton Woo, "Low Cost Navigational Data Recording Payload for SERA Sounding Rockets", 23rd ESA Symposium on European Rocket and Balloon Programmes and Related Research. 📄		
<b>UNIVERSITY OF ZAGREB</b>	<b>BSc Computer Engineering</b>	Jul 2015	Zagreb, Croatia
Bachelor Thesis	L. Strizic and J. Knezovic, "Optimization of lossless image compression method for GPGPU," 2016 18th Mediterranean Electrotechnical Conference (MELECON), Lemesos, 2016, pp. 1-6. 📄		
Extracurricular	Student Representative at the Faculty Council		

## TALKS

<b>2019 5<sup>th</sup> annual FantaSTikon fantasy &amp; SF convention</b>	<i>Navigation in the past, present and future</i> , no recording
<b>2018 IEEE Croatia Section, Department of Education</b>	<i>From UniZg to a Space Oscar</i> , in Croatian 📺
<b>2018 3<sup>rd</sup> annual SOELA solar technology conference</b>	1-on-1 panel discussion guest, in Croatian 📺
<b>2017 Institute of Navigation International Technical Meeting</b>	<i>Crowdsourcing GNSS Jamming Detection and Localization</i> , no recording 📺

## HACKATHONS & COMPETITIONS

<b>2019 HackZurich hackathon</b>	1 <sup>st</sup> place out of 6 teams in the <i>Healthcare</i> track
<b>2019 Techfest Munich hackathon</b>	1 <sup>st</sup> place out of 6 teams in the <i>Healthcare</i> track
<b>2019 EESTech IoT Challenge hackathon</b>	Organizing team; tested hardware & software, handled communication
<b>2019 STARTHack hackathon</b>	1 <sup>st</sup> place out of 6 teams in the <i>Blockchain</i> track
<b>2018 STEMGames student competition</b>	1 <sup>st</sup> place out of 20 teams in the <i>Technology Arena</i> track
<b>2017 European Satellite Navigation Competition</b>	2 <sup>nd</sup> place out of 320+ applicants, winner of the <i>University Challenge</i> track
<b>2016 CopenHacks hackathon</b>	1 <sup>st</sup> place out of 25 teams, <i>.tech's</i> prize for hosting on <i>.tech</i> domain
<b>2015 jacobsHack! hackathon</b>	2 <sup>nd</sup> place out of 24 teams, organizer's favourite hack
<b>2015 Elektrijska student competition</b>	1 <sup>st</sup> place in C++ out of 18 teams, 2 <sup>nd</sup> place in C out of 18 teams
<b>2015 Telegram BlackBerry 10 native client contest</b>	Runner-up out of 10 teams, awarded 5000 EUR

## SKILLS & TECHNOLOGIES

<b>Programming Languages</b>	♥ C, ♥ C++, Java	Under 10k LoC: Python, JavaScript, VHDL, Verilog, PHP, Haskell, Matlab
<b>Other Technologies</b>	PCB design, firmware & microcontroller programming, Android app development, CUDA GPGPU programming, fullstack development	
<b>Spoken Languages</b>	Croatian native, English C2, German B2, French A1	