

Julia Luna

Software engineer, embedded developer

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TECH


I've been building software since 2012, using many languages over the years. The ones I'm best at are **Rust** and **Python** (my current favorite and my first language, respectively). Other languages I've used a significant amount include **C**, **Java**, **PHP** and **JS**.


I consider myself a programming polyglot, however I will enjoy writing **Rust** most by far.


On the hardware side I have experience making PCBs with **KiCad**, using **3D printers** and **laser cutters**, 3D modeling with **Fusion360** and **Blender**.

I run **Linux** servers, and know how to use **containers**, **VMs**, and automated deployment tools such as **Ansible** and **Colmena** (a **Nix** deployment tool).

NATURAL LANGUAGES

English 
Native language


German 
Native language

Spanish 
Studied in school
Self-assessment: A2

COMPETITIONS

Catalysts Coding Contest

 codingcontest.org

 2019-11-08

Worldwide level-based coding game.

- University of Salzburg: 1st place
- Globally: 47th place

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WORK

Software Developer 2023-2024, Remote  NSB Software

- porting a mission critical (to large enterprise customers) shell script application to Rust, to make it more robust, easier to reason about, and possible to trace.
- rewriting a mail filter in Rust, with focus on leaving a clean codebase


Software Developer 2022-2023, Remote  BlaulichtSMS

- extending and maintaining the backend platform (Java)
- implementing a proxy for ELKOS-alarms in Rust

Software Engineer 2020 - 2021, Remote  rami.io

- worked on their main project, pretix, as a backend developer
- added several large features, some of which have been explicitly praised by customers
- used Python with Django for the backend, and HTML/JS with jQuery for the frontend

Full stack Engineer 2019, Liechtenstein  NTi Audio

- designed and built a custom hardware audio interface running embedded linux to help with testing their  [XL3 Acoustic Analyzer](#)
- implemented an old data transmission protocol
- software for a Raspberry Pi to handle their entrance area TV

Assistant Sysadmin 2016-2020, Austria  at my high school

- volunteer work, helped out with server administration
- maintained the school's website, mail server, Active Directory, and the file share/storage for 500 students

Independent security researcher 2015 - 2018, Remote  under NDA

- auditing software and some critical infrastructure
- researching vulnerabilities in RF technologies

EXPERIENCE

I have written software for the majority of my life, solving problems and implementing creative project ideas. I'm fast at picking up new concepts, especially if I'm interested in them.

Software projects span a wide range of topics from embedded to web development. Some examples include [a qr-code generator for KiCad 7](#), a custom firmware for [Watchy](#), [a tool to moderate follow requests on social media](#), and a lot more.

Hardware: I built small things since right around the time IoT became a thing, using the ESP chip family for many projects. In 2020 I started doing PCB design, notable projects include [my business card](#) and [a 3ds usb-c charging board](#). An exciting yet-unpublished project is a lamp composed of many small lights that exhibit swarm behavior similar to fireflies.

Ops: I currently have my own server hardware in a datacenter, and run a handful of services for a few dozen users.