

Arthur Jochems

Software Engineer

@ hello@detuur.dev ↗ www.detuur.dev 📧 @detuur 🏠 detuur 📍 Hoegaarden, Belgium

Building self-sufficient, future-proof, and efficient solutions.

Technical Expertise

Python	<div style="width: 100%;"><div style="width: 100%;"></div></div>
Javascript	<div style="width: 100%;"><div style="width: 80%;"></div></div>
Typescript	<div style="width: 100%;"><div style="width: 70%;"></div></div>
PostgreSQL	<div style="width: 100%;"><div style="width: 60%;"></div></div>
Rust	<div style="width: 100%;"><div style="width: 50%;"></div></div>
C# / .NET	<div style="width: 100%;"><div style="width: 50%;"></div></div>
Java	<div style="width: 100%;"><div style="width: 40%;"></div></div>
C/C++	<div style="width: 100%;"><div style="width: 40%;"></div></div>
SystemVerilog	<div style="width: 100%;"><div style="width: 30%;"></div></div>
Assembly (RISC-V)	<div style="width: 100%;"><div style="width: 20%;"></div></div>
Linux	<div style="width: 100%;"><div style="width: 100%;"></div></div>
Git	<div style="width: 100%;"><div style="width: 100%;"></div></div>
Docker	<div style="width: 100%;"><div style="width: 80%;"></div></div>

Additional Skills and Exposure

React • Vue • CUDA • Node.js • MongoDB • Cloudflare • AWS • GitHub CI • GitLab CI • Jenkins • XAML • HTML/CSS • .NET

Methodologies

Agile • Scrum • Domain-Driven Design • Test-Driven Development • Behaviour-Driven Development

Tools

Mercurial • SVN • IntelliJ IDEA • VSCode • vi • Odoo • YouTrack • MS Office • 365 • MS Exchange • Active Directory • Slack • Postman

Education

KU Leuven 📅 2019 – 2022

Master in Computer Science (not achieved)

- Passed all courses, only thesis outstanding.
- Track: Software Development and Distributed Systems.

AP Hogeschool 📅 2014 – 2017

Professional Bachelor in IT-Electronics

- Graduated with distinction.

Languages

Dutch	<div style="width: 100%;"><div style="width: 100%;"></div></div>
English	<div style="width: 100%;"><div style="width: 100%;"></div></div>
French	<div style="width: 100%;"><div style="width: 80%;"></div></div>

Experience

Software Developer

📅 2023 Jan. – 2024 Apr.

Odoo

📍 Ramillies

- Was part of a selective development team responsible for the world's foremost open-source ERP suite, using Python and Javascript/ES6.
- Integrated external APIs and helped build and maintain the Logistics module, the subsystem that powers the inventory and manufacturing operations of tens of thousands of businesses worldwide.

DevOps / Firmware Engineer (Part-time)

📅 2021 Oct. – 2022 Jun.

Veoware

📍 Leuven

- As part of a small, heterogenous team of talented, multidisciplinary engineers, helped develop cutting-edge satellite hardware.
- Built and maintained the team's Jenkins and GitLab CI infrastructure for firmware and FPGA development, for which I developed novel solutions for Dockerizing and seamlessly integrating vendored software into internal toolchains.
- Led the development of custom Python/Vue software for hardware testing, working closely with non-software engineers to define scope, functionality, and timelines.

Intern: IC Engineer

📅 2020 Jun. – 2020 Aug.

Nokia

📍 Antwerp

- As part of a two-man team, designed and verified an internal logic analyzer for high speed interfaces for use in next-generation broadband ASICs in SystemVerilog.
- By myself, additionally designed a companion graphical software suite in Python/GTK to program the logic analyzer, read out its resultant data, and graphically analyze it.

Projects

Unpublished smart home project

📅 2024 Jul. – Present

Designing hardware and software for an ecosystem of smart home sensors, actuators, controllers, and panels, built around Single-Pair Ethernet, a bleeding-edge industry standard developed to bring low-cost ethernet connections to factories, automotive, and building automation. (Rust/Python/JS/TS)

Unpublished CUDA project

📅 2024 Apr. – Present

Designing a high-speed data processing pipeline, as a first building block of a full hardware solution that leverages commodity PC interfaces such as PCI-Express to enable data acquisition and analytics at Gbps+ rates with affordable equipment. (C++/CUDA)

Homelab

📅 2016 – Present

I maintain a small homelab to run personal projects and experiments on, consisting of a Proxmox server running virtual machines and LXC containers providing routing, DHCP, DNS, VPN, and custom package management for packages that are not available on Alpine Linux.