

# Dries Vanspauwen

[www.driesvanspauwen.com](http://www.driesvanspauwen.com)

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## EDUCATION

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### KU Leuven

B.Sc. in Engineering Science; **Cum laude**

M.Sc. in Computer Science - Secure Software; (**Exp. Magna cum laude**)

Leuven, Belgium

Sep 2020 – Jul 2023

Sep 2023 – (Exp. Jul 2025)

**Master Thesis:** Reverse Engineering of Microarchitectural Weird Machines - focusing on transient execution vulnerabilities and cache timing attacks

### Instituto Superior Técnico Lisboa

Erasmus+ Exchange;

Lisbon, Portugal

Sep 2023 – Feb 2024

## EXPERIENCE

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### IT Volunteer | Vlaamse Technische Kring (VTK) | Leuven, Belgium

Jul 2022 – Jul 2024

- Official student organization of the Faculty of Engineering Science at KU Leuven ( $\pm$  2400 members)
- Automated internal operations by improving IT infrastructure ([github.com/LitusProject/Litus](https://github.com/LitusProject/Litus)) using PHP, Twig and Doctrine
- Configured and deployed web applications (WordPress, Next.js, PHP) on self-hosted servers using Apache
- Actively involved in current and future affairs of VTK as a member of the administrative body

### Backend Development Intern | Green Island | Grimbergen, Belgium

Jul 2023 – Aug 2023

- Designed promotional jackpot feature for iGaming platform from scratch, improving player engagement
- Developed mathematical models based on data analysis of existing jackpot systems using Python
- Implemented backend solutions in C#, utilising batch processing and caching mechanisms
- Gained hands-on experience with distributed systems, including event sourcing and message queues
- Developed REST API endpoints using ASP.NET, OpenAPI schemas and NHibernate ORM

### Software Development Intern | Keysight Technologies | Rotselaar, Belgium

Jul 2022 – Aug 2022

- Designed plugins with Qt and Python, increasing engineering productivity by 7.5% through automation of common tasks

### PAL Tutor (Peer Assisted Learning) | Vlaamse Technische Kring (VTK) | Leuven, Belgium

Sep 2021 – Jan 2022

- Assisted freshmen with the course 'Applied Mechanics I'

## AWARDS & ACHIEVEMENTS

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**Case Competition Winner:** Awarded with Best Technical Solution of the Engineering Case Competition presented by AB InBev, Easi, KPMG, Microsoft and Twipe and organised by VTK and Industria. (Nov 2024)

**Best Belgian MEP Delegate:** Selected as best of 20 participants at the Netherlands MEP Conference, a five-day simulation of the European Parliament where students tackle political issues through research and debate (May 2019)

**International MEP delegate:** Selected to join international version of MEP in Valletta, Malta. (Nov 2019)

## PROJECTS

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### Burgieclan (WIP) | [github.com/VTKLeuven/burgieclan](https://github.com/VTKLeuven/burgieclan)

- Group of students creating a file & information sharing platform for engineering students
- Set up NextJS architecture (error handling flow, API service layer, caching mechanisms) and automated deployment via Github Actions
- Designed UI components using Typescript and Tailwind CSS
- Implemented OAuth 2.0 flow from scratch using custom authorization server and JWTs
- Contributed to Symfony backend, created API endpoints using API Platform

### Static NextJS Website | [github.com/driesvanspauwen/nuffalo-jill](https://github.com/driesvanspauwen/nuffalo-jill) | <https://nuffalojill.vtk.be/>

- Team leader of 6 people creating static NextJS website for student organization

### Network & Computer Security Project

- University project of simplistic bank infrastructure, focused on securely transporting and storing data
- Established data encryption (using AES), integrity (using MAC), freshness (using Nonces) and secure communication using TLS
- Implemented communication channels via Python sockets and security measures via Java crypto library

### VR Driving School | [github.com/MetaverseRaccoons](https://github.com/MetaverseRaccoons)

- University project of 9 students creating virtual reality driving school simulation at Raccoons, Leuven
- Implemented VR UI in Unity and synchronised with backend server via Unity Scripting API in C#

## SKILLS

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**Programming:** C#, PHP, Typescript, Python, HTML/CSS/Tailwind CSS

**Frameworks & Libraries:** Symfony, Next.js, React.js, ASP.NET, Django, NHibernate, Doctrine

**Tools:** Git, Jira, Docker, Ubuntu Server, Apache, L<sup>A</sup>T<sub>E</sub>X, Visual Paradigm

**Speaking Languages:** Dutch (*Mother tongue*), English (*C2*)