

Martijn de Vos

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WORK EXPERIENCE

EPFL

January 2023 – Present

Postdoctoral Researcher - Scalable Computing Systems Laboratory

Lausanne, Switzerland

- **Current research focus:** distributed and decentralized machine learning.
- Published multiple papers on collaborative machine learning.
- Supervised more than ten BSc and MSc students working on systems, fairness and privacy aspects of decentralized learning.

Delft University of Technology

July 2021 – January 2023

Postdoctoral Researcher - Distributed Systems

Delft, The Netherlands

- **Research focus:** content organization in large-scale decentralized systems.
- Published multiple papers on content organization in decentralized file-sharing networks.
- Supervised five BSc students, working on *self-sovereign identity (SSI)*.
- Supervised two MSc students, working on *decentralized federated learning and conflict-free replicated datatypes (CRDTs)*.

École Polytechnique Fédérale de Lausanne (EPFL)

March 2022 – June 2022

Visiting Researcher

Lausanne, Switzerland

- **Research focus:** federated learning techniques in decentralized networks.

CodeUp

April 2014 – Present

Freelance Software Developer

Delft, The Netherlands

- I am developing software on a freelance basis for small to medium-sized companies.
- I also provide website and email hosting services.

Delft University of Technology

September 2016 – June 2021

PhD Candidate - Distributed Systems

Delft, The Netherlands

- **Thesis title:** Decentralization and Disintermediation in Blockchain-based Marketplaces
- Published multiple papers on peer-to-peer mechanisms for decentralized marketplaces.
- I (co-)supervised several BSc/MSc projects related to decentralized finance (DeFi) and self-sovereign identity (SSI).

Mollerlyceum

September 2013 – March 2014

Education Internship

Bergen op Zoom, The Netherlands

- As part of my education minor, I taught mathematics at my former high school. I earned my second degree certification when I finished this minor.

PROJECTS

Emulation of Legacy Apple Devices

- Through extensive reverse engineering, I managed to emulate legacy Apple devices, specifically the iPod Touch 1G and 2G. All code is available on a GitHub repository that has accumulated **over 1000 stars**.
- This project has been presented at the CCC conference, and also been featured on various Apple-related media outlets, such as 9to5mac.

Tribler

- Tribler serves as our research vehicle in leaderless self-organizing systems for the common good. Tribler is open source and has been downloaded by over 1.9 million users.

- I have made significant contributions to the Tribler code base. I have created more than **1700 commits** to Tribler, fully re-designed its user interface, and integrated most of the algorithms described in my PhD thesis.

Gumby

- I am the main developer of the Gumby framework. Gumby allows distributed systems researchers to design and conduct experiments. This tool is extensively used by students and lab members.

Oonincx Administration Software

- I have built a web-based project administration software for Oonincx, a company specializing in ship maintenance. This software is used by **50+ employees** and hosts **thousands of projects**.

EDUCATION

Delft University of Technology

Master Computer Science

September 2014 – September 2016

Delft, The Netherlands

- **Thesis title:** Identifying and Managing Technical Debt in Complex Distributed Systems (grade: 8.5)

Delft University of Technology

Bachelor Computer Science (cum laude)

September 2011 – September 2014

Delft, The Netherlands

- **Honours program:** I was enrolled in the honours program during which I participated in various competitive programming contests, including the Delft Algorithm Programming Contest (DAPC), Benelux Algorithm Programming Contest (BAPC), and the North-Western European Programming Contest (NWERC).
- **Thesis title:** Android Tor Tribler Tunneling (AT3)

AWARDS

Ethereum Foundation Grant

For our work on DeScan, a Censorship-resistant indexing and search engine for Web3

December 2022

Delft, The Netherlands

Blockchain Award (corporate category)

Hiperfit

September 2017

Copenhagen, Denmark

Best Presentation Award (ASCI track)

ICT.OPEN

March 2017

Amersfoort, The Netherlands

2nd place

Delft Algorithm Programming Contest (DAPC)

September 2015

Delft, The Netherlands

2nd place

Delft Algorithm Programming Contest (DAPC)

September 2014

Delft, The Netherlands

SKILLS

Programming Languages : Python, Swift, Objective-C, Java, Kotlin, HTML/CSS, SQL, PHP

INTERESTS

Research : Distributed and Decentralized Systems, Scalability, Reverse Engineering

Other : Bouldering, Snowboarding