



# ROY VOETMAN

Cloud Technologies · Teaching · Artificial Intelligence  
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## EXPERIENCE

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### Cloud Solutions Engineer

Jul 2023 | Present

*RDW · Full-time*

- Developer for the Cloud Integration Platform (CIP).
- Skills: C#, Visio, Azure API Management, Azure Functions

### Software Engineer

Feb 2022 | Jul 2022

*CGI · Internship*

- Conducted research on practical applications of quantum computing for business.
- Developed a PoC for executing and comparing traditional and quantum ML algorithms.
- Skills: Machine Learning, Qiskit, Scikit-Learn, Azure Functions, Python

### Software Engineer

Feb 2021 | Jul 2021

*Self Driving Challenge · Internship*

- Led a team of 5 engineers in developing self-driving software for autonomous vehicle control.
- Implemented a codebase redesign for improved maintainability and portability.
- Skills: C++, NVIDIA Drive, Carla Simulator, PID Controllers

### Back-end Developer

Mar 2018 | Feb 2021

*Noardcode · Part-time*

- Developed back-ends for various clients, translating customer requirements into code.
- Skills: Laravel, PHP, PHPUnit, MariaDB, JS, jQuery, Redis

### Web Developer

Oct 2017 | Dec 2019

*Learn and Believe · Freelance*

- Developed single page applications ensuring that clients' visions and requirements were met.
- Skills: JS, Vue, JWT, REST APIs

### PHP Developer

Sep 2016 | Jul 2017

*OSG Piter Jelles · Internship*

- Engineered a web-based voting system for co-control board elections.
- Skills: PHP, MSSQL, JS, JQuery

## EDUCATION

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### MSc, Computer Vision & Data Science

2022 | 2023

NHL Stenden University of Applied Sciences

*Graduated Cum Laude*

### BSc, Software Engineering

2018 | 2022

Hanze University of Applied Sciences Groningen

*GPA: 4.0 of 4.0 (US scale), Average grade: 8.9 (EU scale)*

### MBO 4 Application Development

2015 | 2018

Friesland College

## CERTIFICATIONS

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<b>Architecture, Algorithms, and Protocols of a Quantum Computer</b> <a href="https://courses.edx.org/certificates/8d08b530ca03441c9a5bfdc7df039c13">https://courses.edx.org/certificates/8d08b530ca03441c9a5bfdc7df039c13</a>	TU Delft   edX May 2022
<b>Machine Learning</b> <a href="https://www.coursera.org/account/accomplishments/verify/A8WTKWR2MKY8">https://www.coursera.org/account/accomplishments/verify/A8WTKWR2MKY8</a>	Stanford   Coursera May 2022
<b>VWO Wiskunde B (Mathematics for the hard sciences)</b> <a href="https://www.royvoetman.nl/credentials/wiskunde-b.pdf">https://www.royvoetman.nl/credentials/wiskunde-b.pdf</a>	Utrecht University   Boswell-Bèta Aug 2021
<b>Computer Science for Artificial Intelligence</b> <a href="https://credentials.edx.org/credentials/b251ddf835104f99ab00a67918f55d04/">https://credentials.edx.org/credentials/b251ddf835104f99ab00a67918f55d04/</a>	Harvard   edX Sep 2020
<b>Certified Laravel Developer</b> <a href="https://exam.laravelcert.com/is/roy-voetman/certified-since/2020-02-11">https://exam.laravelcert.com/is/roy-voetman/certified-since/2020-02-11</a>	Laravel Feb 2020

## SKILLS

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Programming Languages:	PHP, JavaScript, C, C++, Java, Python, MySQL & MSSQL
Industry Knowledge:	Software Documentation, Agile Methodologies, Design Patterns & Principles
Interpersonal Skills:	Public Speaking, Team Leadership, Time Management
Languages:	Dutch ( <i>Native proficiency</i> ), English ( <i>Full professional proficiency</i> )

## ANCILLARY POSITIONS

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<b>Educational Content Creator</b> <i>Open Source CS</i> – Creating mathematically orientated explainers tailored for computer science students. <a href="https://www.youtube.com/OpenSourceCS">https://www.youtube.com/OpenSourceCS</a>	Aug 2021   Present
<b>Guest Lecturer</b> <i>Noorderpoort</i> – Instructed an intensive two week study program on working with PHP and Laravel.	Jun 2022   Jun 2022
<b>Teaching Assistant</b> <i>Hanze University of Applied Sciences Groningen</i> – Hosted labs, recitation hours, and graded problem sets.	Sep 2019   Feb 2022
<b>Study Support Instructor</b> <i>Study Association RealTime</i> – Hosted exam preparation sessions for all programming related first-year courses.	Nov 2019   Feb 2022

## PUBLICATIONS

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<b>Identification of Potato Virus Y in Potato Plants using Deep Learning and GradCAM Verification</b> Roy Voetman, Willem Dijkstra, Jeroen E. Wolters, and Klaas Dijkstra	Springer Sep 2023 doi:10.5555/00000000
<b>Using Diffusion Models for Dataset Generation: Prompt Engineering vs. Fine-tuning</b> Roy Voetman, Alexander van Meekeren, Maya Aghaei, and Klaas Dijkstra	Springer Sep 2023 doi:10.5555/00000000
<b>The Big Data Myth: Using Diffusion Models for Dataset Generation to Train Deep Models</b> Roy Voetman, Maya Aghaei, and Klaas Dijkstra	arXiv Jun 2023 arXiv:2306.09762

## PROJECTS

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<b>GitLab API Client for PHP</b> <a href="https://github.com/RoyVoetman/flysystem-gitlab-storage">https://github.com/RoyVoetman/flysystem-gitlab-storage</a> A PHP package that has <b>over 10.000</b> downloads on GitHub.	Open Source Library
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