



# Ruben van Nieuwpoort

## Software developer

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## About me

Analytic with a broad interest in technical topics. Passion for learning and teaching. Thrives when working in a small, multidisciplinary team in a stimulating environment.

## Experience

April 2023 - Current

Infi, Utrecht  
*Software developer*

Infi makes apps, websites, and web applications.

- Worked on various websites and web applications, both for customers and internally.
- Solving bugs, maintenance, and setting up new websites and applications.
- Worked with Azure, C#.NET, TypeScript, SQL, Node.js, React, and Vue.
- Worked as tester of websites and mobile apps.

Sep 2020 - Dec 2022

Optiver, Amsterdam  
*Software developer*

Optiver is a high-frequency trading firm operating worldwide, predominantly acting as a market maker.

### *Compliance tech*

The compliance tech team is responsible for automating many compliance tasks (recordkeeping, surveillance, reporting).

- Mostly worked with Python 3, otherwise used C++, Postgres, and AWS.
- Responsible for SFTR reporting and setting up a new SFTR pipeline.
- Responsible for introducing an application that detects transactions in sanctioned products.

### *Options research & data*

The options research and data team is responsible for the data used by research and trading.

- Mostly worked with C++, Python, and Postgres.
- Responsible for an application used for calculating trade metrics. Implemented various features and refactored the application to use a different internal framework.

Jun 2019 - Aug 2020

Altium TASKING, Amersfoort  
*Software developer*

TASKING develops IDEs and toolchains for embedded systems used in the automotive industry. Worked on various toolchains used in TASKING products, mostly compilers.

- Implemented an automated procedure to find compiler bugs
- Implemented a framework to check the test coverage

Worked on Linux, and regularly wrote C, bash, and Python. Also worked with C++ and assembly languages in various architectures (TriCore, ARM, 8051, and others).

Oct 2017 - May 2019

Betabit, Utrecht  
*Junior consultant*

Received training in C#.NET, SQL, and various front-end technologies such as HTML, CSS, JavaScript, TypeScript, and Angular. Worked at two clients.

*Insurance company*

Worked in a multidisciplinary team of actuaries and programmers on a model for market value projection.

- Worked on the architecture and implementation of model and database
- Reduced runtime of shadowmodel tests from 30+ minutes to less than a minute, improving the efficiency of the team
- Taught various programming topics to actuaries

*Electronics retailer*

Worked on the product management system, which was transitioning from a monolithic system to microservices.

- Troubleshooting users
- Lead the technical side of the transition to a new product information supplier

Apr 2013 - Nov 2014

Utrecht University, Utrecht  
*Teaching assistant*

Worked as a teaching assistant for several courses. Responsibilities included instructing students and grading homework and lab assignments.

*Game programming*

In the course 'game programming', students are expected to program simple games in C#, using XNA game studio.

*Web design*

This course serves as an introduction to programming for the web in HTML, CSS, JavaScript, and PHP.

*Calculus A*

The course 'Calculus A' is the introduction to university-level calculus, and very important in the mathematics curriculum.

## Education

Sep 2016 - Dec 2017	<p>TU Delft and Maxeler Technologies <i>Master thesis: "Solving Poisson's equation using dataflow computing"</i></p> <p>Implemented an experimental finite element implementation on an FPGA. For the implementation, Maxeler's high-level synthesis framework based on dataflow computing was used.</p>
Sep 2014 - Dec 2017	<p>TU Delft <i>MSc Applied Mathematics</i></p>
Sep 2014 - Dec 2017	<p>TU Delft <i>MSc Computer Engineering</i></p>
Sep 2011 - Jul 2014	<p>Utrecht University <i>BSc Mathematics</i></p>
Sep 2010 - Jul 2014	<p>Utrecht University <i>BSc Computer Science</i></p>
Sep 2004 - Jun 2010	<p>Christelijk Gymnasium Utrecht <i>Pre-university education</i></p>

## Skills

General	Professional experience with <b>scrum</b> and <b>agile</b> . Experience with <b>scientific computing</b> and knowledge of <b>high-frequency trading</b> .
Technology	Familiar with <b>Azure</b> programming on <b>Linux</b> and <b>Windows</b> . Some experience with <b>DevOps</b> and <b>Linux system administration</b> basics.
Application programming and scripting	Familiar with <b>C</b> , <b>C++</b> , <b>C#.NET</b> , <b>SQL</b> , <b>Python</b> . Some experience with <b>bash</b> .
Web programming	Familiar with <b>HTML</b> , <b>CSS</b> , <b>TypeScript</b> and <b>JavaScript</b> (both on the frontend and on the backend). Experience with programming Web APIs in <b>C#.NET</b> .
Other	Knowledge of <b>hardware</b> , the hardware description language <b>VHDL</b> , and communication protocols such as <b>UART</b> , <b>I<sup>2</sup>C</b> , and <b>SPI</b> .

## Other

Apr 2018 - Sep 2018      New Dutch Connections, Utrecht  
*Voluntary work*

Jan 2014 - Jun 2014      UC Santa Barbara, Santa Barbara  
*Exchange program*

## Hobbies

Athletics, bouldering, climbing, playing the drums. Tinkering with operating systems, software, and electronics. Mathematics, reading, writing.