



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

Sep 2020 - Dec 2022

Optiver, Amsterdam
Software engineer

Optiver is a high-frequency trading firm operating world wide, 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 engineer

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>TU Delft <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 scrum and agile . Experience with scientific computing and knowledge of high-frequency trading .
Technology	Familiar with programming on Linux and Windows . Some experience with DevOps and Linux system administration basics.
Application programming and scripting	Familiar with C , C++ , C#.NET , SQL , Python . Some experience with bash and Java .
Web programming	Familiar with HTML , CSS , and JavaScript .
Other	Some knowledge of hardware , the hardware description language VHDL , and communication protocols such as UART , I²C , and SPI .

Other

Apr 2018 - Sep 2018	New Dutch Connections, Utrecht <i>Voluntary work</i>
Jan 2014 - Jun 2014	UC Santa Barbara, Santa Barbara <i>Exchange program</i>

Hobbies

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