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.

Skills

General

Worked in **finance** at **high-frequency trading** and insurance companies.

Technology

Proficient in **C**, **C++**, **C#.NET**, **Python**. Experience with assembly languages (**x86**, **ARM**, **TriCore**).

Frontend

Experience with **HTML**, **CSS**, **JavaScript**, **TypeScript**, various frontend frameworks (**Vue**, **Angular**, **React**), and **Azure**.

Hardware

Familiar with **VHDL**, and communication protocols like **UART**, and **SPI**.

Work history

April 2023 - Current

Infi, Utrecht
Software developer

Infi is a software consultancy company that makes apps and web applications.

Sep 2020 - Dec 2022

Optiver, Amsterdam
Software developer

Optiver is a high-frequency trading firm operating worldwide.

Compliance tech

The compliance tech team develops and operates applications to automate and assist with compliance tasks, including recordkeeping, surveillance, and reporting.
- Set up a new SFTR reporting pipeline for a new clearing bank
- Developed a new application to detect trades in sanctioned instruments

Options research & data

The options research and data team is responsible for the data used by research and trading. In particular, I was responsible for a distributed high-throughput system that calculates trade metrics, which are heavily used by trading and research to analyze trades.

Jun 2019 - Aug 2020	**Altium TASKING, Amersfoort** *Software developer* TASKING develops tools for programming for embedded systems. • Worked on a C compiler for the ARC architecture • Set up an automated framework to find compiler bugs • Implemented a framework for monitoring the test coverage
Oct 2017 - May 2019	**Betabit, Utrecht** *Junior consultant* Worked at various client as a software consultant. *Insurance company* Worked in a multidisciplinary team of actuaries and programmers on the implementation of a model for market value projection. • Reduced runtime of shadowmodel tests from 30+ minutes to less than a minute, greatly improving the efficiency of the team • Teached various programming topics to actuaries *Electronics retailer* Worked on the product management system. I helped users and led 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 for the Mathematics and Computer Science curricula. Responsibilities included instructing students and grading homework and lab assignments.

Education

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

Other

| Apr 2018 - Sep 2018 | New Dutch Connections, Utrecht
Voluntary work |
| Jan 2014 - Jun 2014 | UC Santa Barbara, Santa Barbara
Exchange program |

Hobby projects

Reals
https://github.com/rubenvannieuwpoort/reals

Reals is a Python package for arbitrary-precision arithmetic that is designed to be easy to use. It can evaluate mathematical expressions with high accuracy.

Vulture
https://github.com/rubenvannieuwpoort/vulture

Vulture is a work-in-progress FPGA implementation of a pipelined RISC-V processor.

Hobbies

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