

Rick van der Zwet

Innovation by integration

Education

- 2011–2013 **Computer Science**, *Leiden University*, Leiden.
Master
- 2004–2011 **Computer Science**, *Leiden University*, Leiden.
Bachelor
- 2003–2004 **Electric Engineering**, *TU Delft*, Delft.
30 ECTS
- 1997–2003 **VWO**, *Vlietland College*, Leiden.
Profile Natuur & Techniek (Nature & Science)

Experience

Jobs

- 2013–current **Sr Project Engineer**, *AnyWi Technologies B.V.*, Leiden.
Wide range of tasks and projects;
 - Software development and design of multipath cellular router and secure remote access technologies, including deployment and operation on fleet of ships.
 - Software development and design of high-resolution timel-lapse imagery under difficult conditions.
 - Technical design talks and implementation of AnyWi participation in european research projects like HighProfile, HoliDES and PRYSTINE.
 - (Remote) technical assistance, infrastructure and roll-out of 'eduroam' WiFi solution across wide range of network on side.
 - Responsible for day to day operation of infrastructure/upgrades and improvements including protocol translation solutions for a large tanker shipping business.
- 2010–2013 **UNIX Engineer**, *Optiver*, Amsterdam.
Delicated UNIX Team makes sure 400+ systems (globally) where running at maximum efficiently;
 - Building an large configuration infrastructure platform which allowed application engineers to tweak machines according to their needs while maintaining maximum performance. The system involved closed feedback loops which allows for monitoring of parameters and track changes with a very high degree of certainty. The 'race' involved tweaking microsecond performance out of systems in a consistent configuration.
 - implementation and maintenance of archiving and storage systems for large scale log file ingestion, which needed to be stored on a active disk onfiguration cluster and was ingesting by 70-100GB a day with a retention time of 7 years.

- 2009–2010 **System Administrator**, *TransIP B.V.*, Leiden.
- o Responsible for IT systems and hardware running FreeBSD for internal use and external use.
 - o Bring 240 racks datacentre back into control (organise, cleanups).
 - o Ran a large hardware upgrade of the all managed PDU powerbars. within the entire data-centre, without downtime.
- 2008–2009 **System Administration Manager**, *Joost Technologies B.V.*, Leiden.
Formally 'The Venice Project' converted into a young business:
- o Responsible for internal facing IT systems and hardware -running various operating systems like FreeBSD, Ubuntu, Windows Server.
 - o Improve team structure to support changing company, re-structuring a team of 6 people.
 - o Improve user satisfaction with the implementation of a (partial) ITIL implementation.
- 2006–2008 **System Administrator**, *The Venice Project*, Leiden.
The Venice Project was a large start-up (300+ employees, 3 main offices, multiple branches), which aimed to disrupt the broadcasting market, by providing on-demand digital media broadcasting. I joined the Leiden office as one of the first employees. Achievements;
- o Setup initial internal (IT) support infrastructure in three offices.
 - o Implementing mail & web services running on FreeBSD/Ubuntu servers.
 - o Successfully managed an email migration from Zimbra/Exchange/Courier IMAP into Google Apps.
- 2005–2006 **System Administrator**, *Cope IPS*, Leiden.
- o Maintaining external facing web services running FreeBSD.
 - o Transition of the business users towards an Exchange 2003 environment.
 - o Setup a new build environment for development.

Master Thesis

title *Enhancing Relation Discovery in Unmarked Spatial Temporal Data using Visualisation*
 abstract The objective of this Master Thesis is to find out how-to enhance automated relation discovery in untagged spatial temporal data, using visual aids and meta-data learning.

This paper will demonstrate why existing implementations of automated relation detection could benefit from adding meta-data and how a newly defined feedback loop involving a human operator will enhance the sensor data analytics and relation discovery methods.

This approach is demonstrated by walking through several use cases, like interactive real-time visualization using heatmaps.

In this study it was found that using visual thinking as addition to automated relation discovery enhances the ability to find new relations.

Master Research Project

title *Exploratory research on Market Effects of Exchange System Latency's for High Frequency Trading*

abstract The objective of this Research Project is to explore Market Effects on High Frequency Exchange Trading System.

This paper will focus on delays in the Exchange Systems and its effect on the Trading Market. This required us to build an simulation of the *OTC HFT* validate our claims.

In this study it was found indications that delays introduced by heavy "load" of the Exchange Systems, could potentially causes the Market Behaviour to change in an unpredictable way.

Bachelor Thesis

title *Exploratory research on embedding CUDA code into heterogeneous MP-SOC architecture-programmed with the Daedalus framework*

abstract The objective of this Bachelor Thesis is to explore the possibilities of using *NVIDIA CUDA* enabled *GPU* Processors within the *HDPC* framework. The *HDPC* framework is one of the heterogeneous *MP-SoC* architectures programmed with the *Daedalus* framework.

This paper will focus on the transfer overhead introduced by using the *GPU* and how to best cope with this introduced latency.

In this study it was found that using the *GPU* instead of the *CPU*, the overall execution times will decrease if the execution pattern has specific characteristics with regards to token size and processing complexity.

Languages

Native Dutch

		UNDERSTANDING		SPEAKING		WRITING
		Listening	Reading	Spoken interaction	Spoken production	
CEFR	English	C2	C2	C1	C1	C1
	German	A2	B2	A2	A2	A1
	French	A2	B1	A1	A1	A1

Levels: A1/A2 Basic user - B1/B2 Independent user - C1/C2 Proficient user
(Common European Framework of Reference for Languages)

Interests

- Networks Networks of any kind has always fascinated me, social networks, wireless networks, all quite different, but fascinating
- Open Source Developing software, maintaining projects, providing feedback
- Electronics Circuit Analytics and microprocessor projects
- Community Participation Trying to make the world a better place

Miscellaneous

2004–current **Volunteer**, *Stichting Wireless Leiden*, Zoeterwoude.

Developer (actually also board member) for an non-profit organization which aims to build an open wireless network covering the city of Leiden and its surrounding using open source software. Running a stable FreeBSD configuration on 80 different hardware systems on hard-to-reach locations is quite a challenge, but it is real fun to get it all going together with many others

2016–current **Volunteer**, *MakerSpace Leiden*, Zoeterwoude.

Member of MakerSpace Leiden, small contributor to infrastructure and processes

Version Control

Generated	31/Mar/2021 at 10:36
Version 2009	Initial version
Version 2010	Updated personal details
Version 2021	Added AnyWi and Optiver, removed obsolete personal details, updated interests, included details master and research projects