

Sander Demeester

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1990/01/17

Personal	Diagnosed with autism, Because of this, my academic career is somewhat unconventional. My big passions are information networks and number theory.	
Work experience	<i>Software developer</i>	Summer intern 2013
	Developing of a Python program to analyze large amount of logging information generated by the ugent supercomputer through static data analysis and machine learning algorithms. . At High performance and computing infrastructure (University Ghent). (github.com/hpcugent)	
	<i>administrative en ICT employee</i>	2010 - 2011
	Stage at Province of West Flanders department ICR. In my final year of secondary education I started doing some administrative. This work quickly evolved to ICT work. At the end of the year the result was a security model i had developed involving the WiFi Security specification (802.11i)	
Education	<i>Secondary education</i> , Extraordinary education for people with autism. Spermalie BRUGES (2002 - 2010)	
	<i>Informatics</i> , Ghent University . Courses passed:	
	1st bachelor (2010-2011)	Programming 1 and 2 Communication Skills Intellectual property law Linux Computing (advanced) Scripting Languages (advanced use of Linux)
	1st, 2nd and 3rd bachelor (2010-2013)	Algorithms and Data Structures
	2nd bachelor (2011-2012)	Software Development 1 and 2 Computer Architecture
	3rd bachelor (2011-2012)	Operating Systems Computer Networking Interdisciplinary Project Internet technology
	1st master (2012-2013)	Information Security and Cryptography Study of programming languages and models

Language knowledge Dutch (Native speaker)
English (Fluent reading, writing and speaking)

Education related projects. *Algorithms & Data Structures:* AD3zip, ZW-tree
Own implementation of data compression algorithms.

- Burrows Wheeler
- lz77
- Huffman

Avank-bebras: Interdisciplinary Project
System administrator & Software developer.
<http://github.com/SanderDemeester/bebras-avank>.

Project information security: Designing and implementing of an online banking application using a multi-factor authentication scheme on android (HOTP).

Personal projects *Design, configuration and management of an advanced home network*
I have built and now maintain an IPv6 home network by running OpenBSD on embedded platforms: Alix 2D2 (AMD Geode, x86) and raspberry PI (ARMv6).
Building compute cluster with raspberry PI.

Author of several open source projects.
Refer to github.com/SanderDemeester

- Network analysis tools
- Own implementation of cryptographic algorithms (with the purpose of gaining a better understanding of their inner workings).

ZeusWPI

Active member of ZeusWPI, a student organization at Ghent University with a passion for IT projects.

- <http://zeus.ugent.be>
- <http://github.com/ZeusWPI>

Ethical Hacking Workgroup

Active member of the Ethical Hacking Workgroup at the ELIS department of Ghent University, a faculty-organized initiative striving to teach interested students about IT security.

Attend IT-related conferences & events

- FOSDEM - Free and Open Source Developers, European Meeting
- BruCON - annual security and hacker conference
- VPW - Flemish programming contest
- Blackberry developer conference

SHA3 workshop

Cryptography workshop about SHA3 and permutation based cryptography, organized by VUB.

Reading international academic publications from IEEE and ACM.

Computer literacy

Programming languages

- | | |
|----------------------|-----------------------------------|
| - Java (Excelent) | ASP.NET |
| JDBC | - x86 assembler and ARM assembly. |
| jbox2d | |
| Swing | Frameworks en Library |
| - C / C++ (Excelent) | libxml2 |
| - Python (Good) | ncurses |
| - Javascript (Good) | Play framework |
| sigma.js | Android (baisc) |
| node.js | Sage Mathematics |
| - .NET (Good) | scikit-learn |

System administrator

- Linux en OpenBSD
 - DNS/BIND (dnssec)
 - advanced knowledge of TCP/IP and networking techniques.
 - Good knowledge of IPv6 + deploy techniques.
 - Knowledge VPN technologies. (TLS/IPSEC)
 - Routing and dispatch en Dispatch algorithms (RIPv2, BGP basic).
 - Excellent knowledge of the two biggest firewall based rule engines (IPTables and PF).
 - Experience with NetFlow packet analysis.
 - Experience with Apache.
 - Experience with OpenSSL.
 - Network Engineering.
 - Network Architecture.
- Experience with Windows, Linux (Debian based, Gentoo, CentOS en Back-Track) and OpenBSD.
 - Scripting, bash, sed en awk.

Tools

Wireshark
Postgresql
MySQL
Graylog2
Logstash
Jenkins
ZAP

Eclipse

Varia

Blog (<http://www.sanderdemeester.be/blog>)
Semantic web en Linked Data.
Continuous integration.
OWASP
Version control

git.	SCM.
basic knowledge SVN.	basic knowledge databank normal-
basic knowledge Mercurial	ization

References

Luis Fernando Munoz *HPC Systems engineer at Ghent University*
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Jens Timmerman *System Engineer HPC at Ghent University*
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Kenneth Hoste *HPC system administrator at Ghent University*
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Jeroen De Wachter *IT Consultant at Addestino*
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