Bram Leenders

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Education

Technische Universität Berlin	**Berlin, Germany**
Master ICT Innovation	*2014–2015*

Track: Distributed Systems and Services

University of Twente	**Enschede**
Bachelor Computer Science	*2011–2014*

Minor: Social and Technological Philosophy

University of Twente	**Enschede**
Excellence Stream Mathematics	*2011–2014*

An additional mathematics track, consisting of 6 modules and a final thesis. The research topic for my thesis was: "*Size of Very Large Euclidean Minimal Spanning Trees with Power Weighted Edges*".

NIBHV/Santar	**Enschede**
Emergency Response Officer	*2012, yearly re-certified*

Extended certification, i.e. basic first aid, extended first aid and basic fire-fighting.

Marnix College	**Ede**
Gymnasium	*2005–2011*

Track: Science and Technology. Elective courses: Latin, German and Nature, Life and Technology

Publications

Distributed Searchable Symmetric Encryption (2014)

Authors: Bösch, C.T. and Peter, A. and Leenders, B. and Lim, Hoon Wei and Tang, Qiang and Wang, Huaxiong and Hartel, P.H. and Jonker, W.

Published: Twelfth Annual International Conference on Privacy, Security and Trust, PST 2014, 23-24 July 2014, Toronto, Canada. pp. 330-337. IEEE. ISBN 978-1-4799-3502-4

Description: We propose a new scheme for Distributed Searchable Symmetric Encryption that hides the contents of files, the queries and the search pattern. A secure search in an index of one million documents and 500 keywords is excecuted in under one second.

Simple and Efficient Searchable Symmetric Encryption with Application (2014)

Best Paper Award: Data and Application Integration Track, Twente Student Conference on IT

Authors: Leenders, B

Supervisors: Peter, A and van Keulen, M

Description: We propose a new searchable symmetric encryption (SSE) scheme, which guarantees data-confidentiality but preserves search capabilities on the encrypted data. Our scheme is simple, yet more efficient than the state-of-the-art solution at the time of writing. We discuss the security and performance of SSE schemes in general, compared to other types of encryption.

Experience

Projects

ScienceChallenges: I am one of the founders of the ScienceChallenges concept, an enhancement of education at Twente University. ScienceChallenges allows students to participate in complex and often competitive challenges; study related projects. This innovative concept is now officially scheduled by the university for all non-freshman computer science students, and several participating students have won (international) contests.

Challenges Platform: With three peer students, we developed an online platform, comparable to BlackBoard, to support the ScienceChallenges initiative. It allows supervisors (academic staff and companies) and students to offer and participate in challenges. In the production process, we set up a fully automated test, code review and deployment environment for Ruby on Rails on Linux and Mac.

Norvig Web Data Science Award: In co-development with a peer student, I created a Hadoop application calculating the amount of information contained in natural language on the web. This application was executed on the SURFsara's Hadoop cluster using the CommonCrawl webcrawl data.

Work

University of Twente   **Enschede**
Flex worker in various positions   *2011-2014*
- *Student assistant, Course Information project*: define aims and descriptions of bachelor and master courses of the faculty EWI.
- *Emergency Response Officer*: assessing emergency situations and if necessary give first aid, evacuate a location and/or basic fire-fighting.
- *Student assistent, Data and Information module*: evaluating the use of the Ruby on Rails framework for a practical assignment in a new module.

Van Den Tweel Groep BV   **Bennekom**
Store employee   *2009–2011*
Part-time employee in a large supermarket, my responsibilities were the logistics and supply of the fruit and vegetable department.

Student Activism

I.C.T.S.V. Inter-*Actief*   **Enschede**
Chairman Symposium Committee, SimulatIT   *2013–2014*
Organization and execution of the annual Inter-*Actief* symposium (170 participants), which includes acquiring sponsors and speakers, promotional activities and budgeting. The theme of our symposium, SimulatIT, is virtual reality and serious gaming.

I.C.T.S.V. Inter-*Actief*   **Enschede**
Member/Chairman/Vice-chairman Committee Lectures and Excursions   *2011–2014*
As chairman, I managed a group of ten students and trained my successor. As member, my tasks included the planning, promoting and facilitating of excursions, workshops and weekly lectures for students. This included extensive contact with various companies to acquire sponsoring and speakers.

Languages

Dutch: Native proficiency

English: Full professional proficiency   *TOEFL score: 114 of 120 points*

German: Working proficiency

Activities & Interests

Canoe Polo: During my studies in Twente, I have been an active member of the canoe sports association D.K.V. Euros.

Judo & Jiu Jitsu: For a periode of roughly 8 years, I have practiced both sports.

Philosophy of Science, Technology and Society: The impact of technology on society fascinates me. I have followed parts of the PSTS master at the University of Twente outside my regular curriculum.

Educational Enhancements: I consider education to be a keystone of society, and I do not hesistate to make my contribution.