

# Daniel Smullen

## Curriculum Vitae

### RESEARCH & WORK EXPERIENCE

ONGOING

#### Researcher

##### *UOIT Software Quality Research Lab*

Currently investigating user privacy in metadata released unknowingly through Internet traffic, and perceptions thereof. Study pending REB approval. Also conducting a novel investigation of the Software Testing Coupling Effect.

SUMMER 2013

#### Researcher

##### *UOIT Software Engineering Lab*

Studied tinyOS based wireless sensor networks, applying policy-based programming to create a new development environment (Policy IDE). Server-based and console-based variants using IPv6 running on embedded systems were also created. Published and presented at EUSPN-2013 (Elsevier). Poster presented at UOIT Student Research Showcase 2013.

SUMMER 2012

#### Engineer-In-Training Co-Op Position

##### *SNC-Lavalin, Global Information Technologies*

Conducted research on mission-critical datacenter systems, analyzing network traffic and file system logs toward better disaster recovery, and infrastructure improvement planning. Developed a novel workstation staging system, reducing the time for new workstation deployments (from 160 minutes down to 20 minutes).

SUMMER 2011

#### Support Technician

##### *SNC-Lavalin, Mining and Metallurgy*

Provided technical support for high value clients in engineering departments and senior management, performing computer forensics, data recovery, and system troubleshooting. Conducted seminars on security and system repair using open source software.

JUNE TO DECEMBER 2009

##### *DESSAU (LVM-Technisol)*

Implemented information systems developed for JEGEL, managing sample logging and lab process queuing. Gained comprehensive field experience in geotechnical and QA testing for concrete and asphalt. Oversaw integration of computer systems during the JEGEL/LVM merge.

APRIL TO JUNE 2009

##### *JEGEL*

Worked as assistant project manager, laboratory and office systems administrator. Worked with City of Toronto on special projects (Trans-Canada Highway Rehabilitation, Toronto 2009 Capital Works Program). Performed collaborative development on an ISO certified laboratory sample management software. Designed and built a datacenter servicing the Toronto engineering team.

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### PROJECTS AND PUBLICATIONS

*Policy IDE, TOSServ, Finger2IPv6 Projects*, tinyOS Community Wiki, Stanford University

N. Qwasmi, D. Smullen, R. Liscano, "Integrated development environment for debugging policy-based applications in wireless sensor networks," The 4th International Conference on Emerging Ubiquitous Systems and Pervasive Networks, 2013

D. Smullen, "Facilitating the Internet of Things with Policy Programming," UOIT Student Research Showcase, 2013

SneakyFS file system design and implementation.  
*Special recognition for 'best project' in ENGR3950 course.*  
Supervisor: Dr. K. Sartipi, P.Eng.

Military logistics management and large-scale visualization system for ENGR3700.  
Supervisor: Dr. E. Al-Masri

Mission-critical datacenter utilization, availability, and performance assessment for SNC-Lavalin GIT risk management and infrastructure remediation.  
Supervisor: M. Ross, Senior Vice-President

2009 Trans-Canada Highway Rehabilitation Geoinformatics.  
Supervisor: A. Duclos, P.Eng.

ISO 9000 certified Laboratory Information Management System (LIMS) for JEGEL internal use.  
Supervisor: Dr. J. Emery, P.Eng.

### AWARDS

- 2013 **NSERC Undergraduate Student Research Award**  
*University of Ontario Institute of Technology*
- 2013 **President's Honors List**  
*University of Ontario Institute of Technology*
- 2012 **President's Honors List**  
*University of Ontario Institute of Technology*
- 2011 **Dean's Honors List**  
*University of Ontario Institute of Technology*
- 2007 **Winner, DaVinci Engineering Design Challenge**  
*University of Toronto*

### MEMBERSHIPS AND CURIOS

#### *Language Proficiency in French, German*

- IEEE, 2013* Student Member
- Red Cross, 2011* Class C Emergency First Aid, CPR and Defibrillator
- Burlington Rifle and Revolver Club, 2009* Range Officer and Full Member
- CTI College, 2005* CTI 3D CAD and CGI Animation Certificate
- University of Toronto, 2005* DaVinci Education Enrichment Program, Fluid Dynamics and Software