

# Nicholas Houghton

## Curriculum vitae

### WORK EXPERIENCE

MAY 2016 - CURRENT

Ocean Networks Canada  
*Software Developer*

Designed, developed, and maintained software for acquiring, publishing and processing large-scale oceanic data. Used Java, Javascript, CSS, HTML, and SQL; frequently used performance analysis tools such as Grafana and JMeter.

SEPTEMBER 2015 - DECEMBER 2015

Univeristy of Victoria - ECE Department  
*Teaching Assitant*

CENG 255, Computer Architecture: Responsible for student learning in a hands on lab environment. Required to have intimate knowledge of the STM32 32-bit ARM MCU use in class as well as the Eclipse IDE, the C programming language and ARM assembly programming.

SEPTEMBER 2014 - MAY 2015

Univeristy of Victoria - ECE Department  
*Junior Research Assistant*

Responsible for the software implementation of a experimental fully-homomorphic encryption algorithm using the C++ programming language and contributed to the algorithm design and conception. Responsible for testing management and execution on the *Westgrid-Research Computing* super computer servers. Designed and built a graphical user interface for an experimental run-time operating system using the Swing Jframe.

JANUARY 2014 DECEMBER 2014

Saanich Commonwealth Place - Victoria B.C.  
*Aquatic Team Leader / Lifeguard*

Responsible for the direct supervision and management of lifeguards and swim instructors. Responsible for facility and equipment management. Performed incident management, quality of first-aid assessment and supervision, emergency medical services communication. Responsible for facility inter-departmental co-operation and communication.

### SKILLS

SOFTWARE	C++, Unity, Unreal 4, OpenGL, GLSL, Blender, Java, JavaScript, HTML, CSS, Ruby on Rails, Linux, C, C#, Git, SVN
ACADEMIC	Lagrangian Mechanics, Quaternions, Splines, Integrators, Calculus, Physics, Academic Writing, Research, Public Speaking
PERSONAL	<i>TopCoder</i> Competitive Programming, First-Aid, Music

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### EDUCATION

2015-2016	<b>Computer Engineer</b> M.ASc <i>University of Victoria</i>
2010-2015	<b>Computer Engineer</b> B.ENG <i>University of Victoria</i>

### PROJECTS

2017	<b>Jump-Ship: 2D Unity Game</b> <i>Unity 5, C#</i>
2016	<b>Automated Hardware Trojan Detector</b> <i>Java, Java-Swing, RapidSmith</i>
2016	<b>Globules - Physical System Simulation</b> <i>C++, OpenGL 3, GLSL</i>
2015	<b>Zombiehunt - Video Game</b> <i>C++, OpenGL 2, Blender</i>
2015	<b>Hardware Trojan System</b> <i>HTML, C#, CSS, JS</i>
2015	<b>Day Trading - Distributed System</b> <i>Java, XML</i>
2015	<b>Homomorphic Encryption</b> <i>C++. OpenMP</i>

### REFERENCES

DR. BRIAN WYVILL	Computer Science University of Victoria Email: bwyvill@uvic.ca Phone:250 472 5760
DR. FAYEZ GEBALI	Electrical and Computer Engineering University of Victoria Email: Fayez@ece.uvic.ca Phone: 250 721 6036

### NOTES

- Visit my website to see my work portfolio:  
[www.nickhoughton.ca](http://www.nickhoughton.ca)
- More references available on request.