



# MATTHEW HODGSON

Bachelor of Software Engineering

PHONE: 778-210-0126

EMAIL: [matthodg@uvic.ca](mailto:matthodg@uvic.ca)

GITHUB: <https://github.com/Hrodgeir>

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## SUMMARY

I am a soon to be graduate of a Bachelor of Software Engineering degree from the University of Victoria. Taking an interest in developing innovative and practical software, I have completed various personal projects and cooperative work terms. I strive to further my knowledge of anything and everything software related, with a keen interest in fields such as artificial intelligence, web development, and automation. I hope for an opportunity to apply my skills and unique perspective to a promising software project.

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## EDUCATION

### BACHELOR OF SOFTWARE ENGINEERING

University of Victoria

SEPTEMBER 2013 - APRIL 2018

Study of the requirements, development, implementation, testing, maintenance, and evolution of software systems ranging from embedded systems to large scale systems.

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## WORK EXPERIENCE

### APPLICATION DEVELOPER

Victoria, BC

ISM Canada - Technology Engineering Services

MAY 2016 – AUGUST 2016 (4 Months) & JANUARY 2017 - APRIL 2017 (4 Months)

- Developed Windows Presentation Foundation applications for ISM Canada's IT Support staff that involved XAML, VB.NET, SQL, and C# in an AGILE development environment.
- Overhauled an existing application to have an intuitive user interface, more functionality, and an enhanced code structure.
- Developed applications involving software automation and testing frameworks.
- Created various test plans and user guides for multiple applications.
- Provided insight on design patterns and implementation of features.
- Gathered complex requirements from users and converted such requirements into individual tasks.

### WEB APPLICATION DEVELOPER

Victoria, BC

University of Victoria - Department of Continuing Studies

JANUARY 2015 - AUGUST 2015 (8 Months)

- Developed ASP.NET web applications for UVIC's Division of Continuing Studies student registration system that involved HTML, CSS, Angular, Razor MVC, and C# in an AGILE development environment.
  - Developed a strong understanding of how a realistic software lifecycle works and how to communicate effectively with team members on a large variety of programming tasks.
  - Provided input and ideas to help towards the development of the web applications.
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## TECHNICAL KNOWLEDGE

### PROGRAMMING LANGUAGES

C#	600 Hours
C	200 Hours
Java	200 Hours
Python	150 Hours
VB.NET	150 Hours
SQL (Various Schemas)	50 Hours
C++	30 Hours
Haskell	10 Hours
Go	10 Hours
Prolog	10 Hours

### DEVELOPMENT TOOLS

Visual Studio	850 Hours
.NET Framework	850 Hours
WPF & XAML	400 Hours
TFS	200 Hours
Git	100 Hours
SVN	100 Hours
Eclipse	100 Hours

### WEB DEVELOPMENT

HTML / CSS	150 Hours
REST API	50 Hours
JavaScript	50 Hours
Angular	25 Hours
ASP.NET	25 Hours
Razor MVC	15 Hours

### OPERATING SYSTEMS

Windows	15,000 Hours
Linux	200 Hours
Macintosh	25 Hours

### METHODOLOGY & TESTING

AGILE	850 Hours
Manual Testing	200 Hours
Requirements Elicitation	80 Hours
Unit Testing	50 Hours
Integration Testing	20 Hours
NUnit	20 Hours
JMeter	10 Hours

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## PROJECTS

### PERSONAL WEBSITE

<http://hrodgeir.github.io/>

Made using HTML and CSS.

### OPTIMIZED FIR FILTER

<https://github.com/Hrodgeir/Embedded-Systems-Project>

Made using C optimization techniques.

### GAME PROTOTYPE

<https://github.com/Hrodgeir/TileGame>

Experimented with various game prototypes using Unity and Microsoft XNA Game. The above is a tile based A\* pathfinding prototype.

### PONG GAME

<https://github.com/Hrodgeir/Pong>

Made using Unity with C# scripting.

### LINUX PROCESS SHELL

<https://github.com/Hrodgeir/LinuxProcessShell>

Made using C to view Linux processes.

### SETTLERS OF CATAN AI

<https://github.com/Hrodgeir/CENG420>

An artificial intelligence using heuristics that determines the best strategy to use when playing the board game Settlers of Catan.

More detailed descriptions can be found here: <https://github.com/Hrodgeir>

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## REFERENCES

### ACADEMIA

Available upon request.

### INDUSTRY

Available upon request.

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