

BILLY HAMILTON

I am a student with a background in computer science and film, always on the lookout for a place where I can learn from talented people and put my abilities to good use. Currently pursuing a Master's of Information Technology in Digital Media at Carleton University.



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SKILLS

Strong: C++, PremierePro.

Intermediate: AfterEffects, C, CSS, HTML, JavaScript, LATEX, OpenGL/WebGL, Visual Studio.

Basic: C#, Maya, MySQL, PHP, Ruby, Photoshop, Unity, x86 assembly language.

EDUCATION

Master of Information Technology in Digital Media (currently enrolled).

Carleton University, expected graduation date 2017.

Certificate in Computer Science with 97.6% average in CS courses.

University of Regina, 2015.

Bachelor of Fine Arts in Film Production with overall average of 91.0%.

Luther College, University of Regina, 2015.

Languages: English (native speaker), German (intermediate).

COMPUTER SCIENCE COURSES

100-level: Programming and Problem Solving, Object-Oriented Design, Calculus I & II.

200-level: Data Structures and Abstractions, Web-Oriented Programming, Linear Algebra.

300-level: Advanced Data Structures, Introduction to Computer Graphics.

400-level: Computer Graphics, Animation Software Design, Interactive Entertainment Software.

SCHOLARSHIPS AND AWARDS

Over 20 scholarships and awards, total value \$37,800, including:

- ★ **Academic Gold Scholarship:** Awarded each term to students with a GPA in the top 1% of their faculty. Six-time recipient.
- ★ **Jean Oser Prize in Film Studies:** Awarded to the writer of the best undergraduate essay in the Department of Film each year. Two-time recipient.
- ★ **NSERC Undergraduate Research Award:** Funding to pursue a 16-week research project, awarded on the basis of academic merit and research aptitude. Two-time recipient.
- ★ **Governor-General's Bronze Medal:** Awarded each year to the student with the highest graduating average at each high school in Canada.

WORK EXPERIENCE

Course Instructor for Computer Science 110: *Programming and Problem Solving in C++*.
University of Regina, 2015.

Supplemental Instruction Leader for Computer Science 110.
University of Regina, 2012-2015.

Undergraduate Student Research Assistant on NSERC scholarship in Computer Science.
University of Regina, 2012 and 2013.

GAME PROGRAMMING PROJECTS

Fish Invaders – 3D graphical arcade-style game.
Project for 400-level course in computer game programming.
Framerate-independent physics, collision checking, particle system, flocking, steering behaviours.

Greek Mythology Roguelike – 2D turn-based RPG.
Personal project.
Sprite-based graphics, procedural generation, turn scheduling system, A* pathfinding.

FILM PROJECTS

Welcome to the Sullivans' – editor and colour corrector.
10-minute comedy film, 2015. For Film 400, Senior Production I.
University of Winnipeg Film Fest (2015), Trinity Film Festival (2015), Living Skies Film Festival (2016).

Elkwhiskers – writer, director, animator, and editor.
5-minute animated film, 2015. For Film 401, Senior Production II.

Moonbase One – writer, animator, and editor.
2-minute claymation film, 2014. For Film 205, Traditional Animation.

Afterlife – writer, director, editor, and visual effects.
8-minute science-fiction film, 2013-2014. For Film 301, Narrative Film Production.

PUBLICATIONS AND PRESENTATIONS

Boting Yang and William Hamilton. *The optimal time of the one-cop-moves game*.
Theoretical Computer Science. Vol. 588, pp.96–113. 2015.

Billy Hamilton. *Beloved Police State: Fantasy and Propaganda in Kolditz' Geliebte Weiße Maus*.
Presented at the Film Studies Association of Canada 17th Annual Graduate Colloquium:
Propaganda, Censorship, and Digital Media. 28 Feb, 2015. University of Regina.

OTHER INTERESTS

Digital art and comics, tabletop role-playing, reading, board games, video games.

REFERENCES

References available upon request.