RACHEL MAILACH

Software Engineering
M.A.Sc. Graduate

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OBJECTIVE

I am a Software Engineering graduate, a programmer, and a researcher. I believe good software is the product of creativity and collaboration. I want to work towards making elegant software solutions for new and unsolved problems.

SKILLS

Software Engineering: Game Design, App Design, App Security, Web Development, Scheduling Tasks in Single and Multi-Server Systems

Programming Languages: Proficient in C++, Python, C#. Familiar with C, Java, MATLAB.

Platforms: Windows, Linux, Mac

Research and Development: Primary and secondary research skills, Proposal writing skills, Research paper writing skills

Web Development: HTML, CSS

Teamwork: Leadership, Organizational, Self-Motivated, Teaching

Solid Modeling: Blender

Additional Software: Adobe Photoshop, Adobe Illustrator, Adobe Premiere, Adobe After Effects

EDUCATION

Master's of Applied Science
Software Engineering
McMaster University, Hamilton, ON.   2016
- Research focused on queuing theory – scheduling tasks in single and multi-server systems using size-aware policies. Systems have job-size estimation errors, and two scheduling policies were compared to consider optimality of scheduling.

Bachelor of Engineering
Software & Game Design
McMaster University, Hamilton, ON.   2015

EXPERIENCE

Teaching Assistant   2016
McMaster University, Hamilton, ON.
Performance Analysis of Computer Systems
 - Lead final year undergraduate tutorials on discrete event simulation, queuing theory and stochastic modelling
- Taught students how to mathematically analyze Discrete Time Markov Chains (DTMCs) and Continuous Time Markov Chains (CTMCs)

Control Systems
- Lead third year undergraduate labs using LabVIEW and MATLAB software
- Taught tutorials on adaptive control systems such as PID and stability theory using root locus analysis

Real Time Systems
- Lead final year undergraduate labs for kernel programming in C
- Aided students in their understanding of task scheduling and various scheduling policies

Software Intern   2013
Weever Apps Inc., Hamilton, ON.
-Developed mobile applications using HTML and CSS
-Spoke with clients and implemented designs with multiple iterations

Engineering Technology instructor   2012
LEAP (Learning Enrichment Advancement Program),
McMaster University, Hamilton, ON.
- Worked in a team to create lesson plans
- Worked with students with a variety of backgrounds

PROJECTS

GAME DESIGN
Kung Fu Pizza Bears – Capstone Project   2015
- Worked with a team to develop a retro Beat 'Em Up game in C++ using C4 Engine

Blockade   2015
- Worked with a team to develop a 2D mobile app puzzle game in C# using Unity

Santa's Slay   2014
- Worked with a team to develop an immersive game using Unity3D with Oculus Rift, Razer Hydra and a custom built haptic chair