Daniel Gold

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Education

University of Manitoba Bsc. Major Computer Science Minor Math, September 2016 **-** Present

Relevant Courses

Linear Algebra | Computer Graphics | Human-Computer Interaction | Data Structures & Algorithms

Work Experience

Field Technical Support	**Shaw**	April 2017 - December 2017
Data Entry Clerk (1 Month Term)	**Investors Group**	March 2017
Customer Service	**Canadian Tire**	May 2012 - July 2016

Projects

Online Ordering System - html & CSS & JavaScript, **Web**

- Developed for Human-Computer Interaction course as a group project
- Conducted user research to develop project requirements
- Prototyped on paper incorporating more user feedback to iterate on design
- Built high-fidelity web-app prototype demonstrating our system workflow
- Used Nielsen heuristics to identify issues for later iterations

Twin Stick Shooter - Java & LibGDX, **PC**

- Built a Simulation of a Spring-Mass system that interacts with on screen entities
- Spring-Mass system interpolates half the visible springs greatly improving performance
- Implemented a variation of Boids with additional rules to use as movement for entities
- Integrated 3rd-party Bloom post-processing into project
- Game is rendered on a 2D plane and uses a perspective camera to achieve visual effects
- Currently working on in-game level editor that loads and saves levels

Pong Homebrew - C & libvita2d, **Playstation Vita**

- Pong clone with an AI opponent
- Developed in one week to learn more about console development
- Used open source toolchain and SDK to develop

Bullet Hell - Java & LibGDX, **PC** & **Web**

- Top down arcade shooter with activated slow-motion mechanic
- Created system to control patterns for bullet pathing and generation
- Utilized memory pooling to avoid unneeded memory allocation and to increase performance to allow the game to run in browser
- Bullet system was later updated into the particle system in another project

Skills

Java | Gradle | C | C++ | Make | JavaScript | HTML | CSS | 3D Math | Linux | Windows | Visual Studio