DANIEL MIN

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EDUCATION

University of Toronto

Faculty of Applied Science and Engineering — Sept 2014 ~ present

- Pursuing BASc in Computer Engineering
- Received President's Entrance Scholarship
- Relevant Coursework: Operating Systems, Algorithms and Data Structures, Probability, Databases, Software Design, Computer Networks

SKILLS

- **Programming Languages:** C, C++, Java, Verilog, NIOS II Assembly, HTML, CSS, SQL, MATLAB
- **Tools:** Subversion (svn), Git, NetBeans, Visual Studio, Android Studio, Firebase, Eclipse, Code::Blocks, ModelSim, Quartus, MultiSim, Sublime Text, MATLAB, Microsoft Office

PROJECTS (For details and more projects, check out github.com/dan09781)

- **Mapping Application (2016)**
  - Developed a user friendly geographical information application that is targeted towards tourists by leading 2 other team members
  - Implemented data structures from C++11 standard template library to speed up computing process
  - Tested the prototype user interface with around 20 potential users and got feedback to make it more user friendly
  - Implemented the shortest path finding algorithm by starting with greedy solution and switching to dijkstra and A* algorithm to improve the performance after iteration of testing
  - Built on top of and implemented additional functionalities on an already existing code on subversion
- **KESA Application (2016)**
  - Developed an android social application in Java and Android Studio that allows members of the Korean Engineering Students' Association to interact and communicate
  - Utilized firebase API to handle authentication and save user data
  - Tested the prototype of various user interfaces with users to achieve high user-friendliness
- **2-D Racing Game (2016)**
  - Developed obstacle avoiding racing game using NIOS II Assembly, VGA monitor, and keyboard
  - Implemented keyboard and timer interrupts for keyboard input and deciding when obstacles should appear
  - Implemented algorithm that detects collision between user-controlled car and obstacles
- **2-D Platform Game (2015)**
  - Designed and programmed a 2-D platform game similar to super mario using Verilog and Altera DE1-SOC board as well as VGA monitor and keyboard
  - Constructed an optimal finite state diagram, that consists of various finite states that are responsible for erasing, drawing, changing signals between each state, checking collision, etc
  - Successfully implemented algorithm to detect collision between character and obstacles
  - Included point system, after testing prototype with users, that increases every time user jumps an obstacle
- **Resistive Network Simulator (2015)**
  - Programmed a virtual resistive network using C++ and NetBeans
  - Implemented parsing algorithm that takes in resistor information as input and stores them in a linked list
  - Performs functions such as deleting a resistor, printing resistor information, and calculating voltage of a node
  - Used NetBeans debugger, gdb, and valgrind to debug and detect, segmentation faults/memory leaks

RELEVANT EXPERIENCE

- **Web Coordinator,** Richmond Hill Presbyterian Church — June 2014 ~ August 2014
  - Assisted in maintaining the camp webpage with a team and redesigned/updated with new information such as news, events, etc using HTML, CSS
  - Focused our design towards the comfort of seniors, as previously they had a hard time interacting and getting information from the website. Following the redesign, more people could interact with the website easily, making the web community more active