

Maxime Sutters

CONTACT INFORMATION

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EDUCATION

University of Washington, Seattle, Washington USA
Paul G. Allen School of Computer Science & Engineering
B.S., Computer Engineering, December 2021

Seattle Central College, Seattle, Washington USA
A.S., Computer Science & Engineering, June 2019

PROGRAMMING PROJECTS

GuitXR: <https://uwrealitylab.github.io/xrcapstone21sp-team4/>

- AR guitar learning application for the Magic Leap headset with floating chords and tabs, instrument-mounted controls, and real-time pitch detection
- Built in Javascript and HTML via the WebXR API and A-Frame web framework
- Refactored ML5.js-based pitch recognition library for guitar
- Presented completed VR capstone demo at the University of Washington Reality Lab

N-Car Parking Garage Simulator

- Designed and programmed finite state machine (FSM) logic in SystemVerilog for two presence sensors at the gate of a simulated parking garage and an n-bit counter to track available spots
- Simulated functionality of hardware devices - LEDs, seven-segment displays, buttons, and switches - in ModelSim before flashing to the Altera DE1-SoC FPGA board

Tetris

- Programmed Tetris clone and implemented advanced object-oriented programming (OOP) code structures in Java
- Reinforced understanding of composition, inheritance, and model-view-controller (MVC)
- Applied unit testing, version control through Git, and pair programming

TECHNICAL SKILLS

Languages: Java, C/C++, Python, Bash, HDL, SystemVerilog, Verilog, assembly
Tools: Quartus, ModelSim, GNU Debugger (GDB), Vim, Git/GitLab, IDEA, KiCad, L^AT_EX, Mathematica
Algorithm projects: Spam filter using machine learning (Naive Bayes), KD-tree nearest neighbor finder, content-aware image resizing with A* graph search
Operating Systems: Unix/Linux (CentOS, Ubuntu, WSL), Windows
Hardware: PCB design, 3D printing, flashing of Arduino/STM32 chips, SMD soldering

EXPERIENCE

Seattle Central College, Seattle, Washington USA

Teaching Assistant

September, 2018 - March, 2019

Duties included office hours, technical support, and management of cloud-based messaging forum. Driver of Slack use in computer science classes at Seattle Central College.

- CSC 110 Intro to Computer Programming with Clarke Wellman
- CSC 142 Computer Programming I with François Lepeintre

SACNAS Chapter, Seattle Central College, Seattle, Washington USA

Chapter Secretary

May, 2019 - August, 2019

Leading member of Society for the Advancement of Chicanos/Hispanics and Native Americans in Science. Organized meetings, researched chapter project proposals, wrote documentation, and corresponded with chapter leadership and members. Facilitated UndocuSTEM Conference.