Speak_

Maxime Sutters

CONTACT INFORMATION

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EDUCATION

Speak_ Program Participant, March 2022

University of Washington, Seattle, Washington USA
Paul G. Allen School of Computer Science & Engineering

B.S., Computer Engineering, December 2021
Selected Courses: Networks, Systems, Digital Design, Compilers, Data Structures and Parallelism

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, GDB, Vim, Git/GitLab, IDEA, KiCad, LaTeX, 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**
Held office hours, provided technical support, and managed online forum for students
Drove Slack use in computer science, math, and physics classes at Seattle Central College
Classes: Intro to Computer Programming and Computer Programming I (CSC 110/142)

Seattle Central College SACNAS Chapter, Seattle, Washington USA

Chapter Secretary **May, 2019 - August, 2019**
Organized meetings, researched chapter project proposals, wrote documentation, and corresponded with chapter leadership and members. Facilitated UndocuSTEM Conference.