Max Sutters

CONTACT INFORMATION

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EDUCATION

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

B.S. Candidate, Computer Engineering (expected graduation date: 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, guitar-mounted controls, and real-time progression on feedback based on 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 to enable real-time feedback on played notes
- Presented completed VR capstone demo at the University of Washington Reality Lab

HuskyMaps

- Used Java to implement a local navigation web application
- Programmed a rasterization system for rendering tiles when zooming in and out of the HuskyMaps interface, and an A* graph-based text search for locations on the map
- Hosted on Heroku

Tetris

- Practiced advanced object-oriented programming (OOP) by implementing Tetris in Java
- Reinforced understanding of composition, inheritance, and model-view-controller (MVC) architecture.
- Applied unit testing, version control through Git, and pair programming.

TECHNICAL SKILLS

Languages: Java, C/C++, Python, Unix/Bash shell scripting, HDL, assembly
Tools: GNU Debugger (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**

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 and researched chapter project proposals, synthesized team documentation, and corresponded with chapter leadership and members. Volunteered for events including

UndocuSTEM Conference.