

Maxime Alexander 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
Selected Courses: Networks, Systems, Digital Design, Compilers, Data Structures and Parallelism

Seattle Central College, Seattle, Washington USA

A.S., Computer Science & Engineering, June 2019
Selected Courses: Computer Programming, Engineering Physics I-III, Computers in Math

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 using Quartus

Tetris

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

TECHNICAL SKILLS

Languages: Python, Java, C/C++, Bash, HDL, SystemVerilog, Verilog, SQL, JSON, assembly
Tools: Quartus, ModelSim, 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 (AL2, WSL), Windows
Hardware: PCB design, 3D printing, flashing of Arduino/STM32 chips, SMD soldering
Frameworks: AWS: Lambda, API Gateway, Secrets Manager, GraphQL, S3, DynamoDB, Athena, Code Pipelines

EXPERIENCE

Amazon Web Services, Bellevue and Seattle, Washington USA

Software Development Engineer

June, 2022 - April, 2024

Developed feature for automation of datacenter security tasks through work assignments API.
Maintained and monitored computer vision and machine learning systems.
Updated legacy code with new API calls and SQL query to Amazon Redshift database.
Built CloudWatch metrics dashboards and alarms.
Created and monitored CI/CD pipelines, AWS accounts, and Apollo environments.

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.