

# Maxime Alexander Sutters

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## 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

## EXPERIENCE

**Amazon Web Services (AWS)**, 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.

## TECHNICAL SKILLS

*Languages:* Python, Java, C/C++, Bash, HDL, SystemVerilog, Verilog, SQL, JSON, assembly  
*Tools:* Quartus, ModelSim, GDB, Vim, Git/GitLab, IDEA, KiCad, L<sup>A</sup>T<sub>E</sub>X, 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

## 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