savarga1@asu.edu
https://samulus.github.io
https://github.com/samulus

Samuel Vargas

Software / Graphics Developer
Arizona State University (2014 - 2018)
Informatics (Bachelors of Science)
Summa Cum Laude (GPA: 4.0)

Skills

LANGUAGES
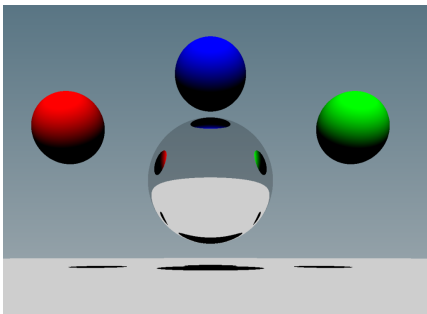C/C++, Java, Python, Lua, Kotlin, D

LIBRARIES
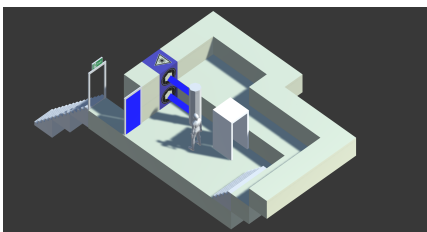OpenGL, WebGL, JUnit, lwjgl,
Nuklear, stbfont, SDL2, glfw, joml, glm

TOOLS
apitrace, renderdoc, Git, Jenkins, Docker
gdb, Vim, Intellij

Project Screenshots

RAYTRACER

TETROMINO

Work Experience

JUNE 2018 - NOW **Connexta LLC (Java)**   **Software Engineer**

- Helped convert a monolithic enterprise application into a highly-available microservice cluster using Docker, Spring, and HAProxy: Substantially decreasing installation time and maintenance effort

- Implemented a complex continuous integration pipeline (Jenkins) that automated our nightly builds, nightly releases, Git tagging / branch manipulation processes, artifact deployment, and docker image creation / publishing, freeing up valuable developer time and reducing potential human error

- Deep-dove into a large undocumented legacy codebase and spearheaded the effort to document it clearly and succinctly for future developers

MAY 2017 - JULY 2017 **Mozilla (C++/JS)**   **WebGL Intern**

- Implemented new features in Firefox's WebGL implementation (like s3tc_srgb texture compression)

- Fixed various bugs in Firefox's WebGL implementation / JavaScript API

- Ran performance profiling tools against Firefox's WebGL implementation to identify and fix slow functions and code paths

AUGUST 2015 - MAY 2018 **ASU (C/C++/Java)**   **Lead Computer Science Tutor**

- Mentored other tutors on how to explain computer science / software development topics intuitively to students.

- Provided tutoring for computer graphics courses on the following topics:
    - Linear Algebra, GLFW / SDL2, GLSL, graphics debugging,

- Provided tutoring for the following other topics
    - Linux (vi, gcc, bash, ssh, scp), Software Testing, C/C++, Multithreading, Data Structures and Algorithms, Computer Graphics (OpenGL), Advanced Debugging, Algorithm Performance Analysis, Web Development

Personal Projects / Open Source Contributions

raytracer	GLFW3 / OpenGL powered iterative raytracer with swappable light transport algorithm support (C++)
glsl_sandbox	OpenGL sandbox environment with interactive matrix manipulation controls (C++)
neovib	Rhythm game inspired by Vib-Ribbon, with custom track support via note onset detection (Java)
tetromino	3D spatial puzzle game written with Unity (C#)
love-imgui	Added a patch to enable custom font usage in ImGui from LÖVE2D programs (C++ / Lua)
easygl	Fixed a compilation issue (Nim)