Max Slater

thenumbat.github.io
mjslater@andrew.cmu.edu | 503.702.0051

EDUCATION

CARNEGIE MELLON UNIVERSITY
BS Computer Science
2018-2022 | Pittsburgh, PA
Cum. GPA: 3.91 / 4.0
Major GPA: 4.0 / 4.0

UNIVERSITY OF NEVADA, RENO
2014-2018 | Reno, NV
Cum. GPA: 4.0 / 4.0

THE DAVIDSON ACADEMY OF NEVADA
2012-2018 | Reno, NV
Cum. GPA: 4.0 / 4.0

LINKS

GitHub://TheNumbat
LinkedIn://TheNumbat
Twitch://The_Numbat

COURSEWORK

Principles of Imperative Computation
Principles of Functional Programming
Great Ideas in Theoretical CS
Parallel and Sequential Data
 Structures and Algorithms
Introduction to Computer Systems
Computer Graphics
Mathematical Foundations for CS
Matrices and Linear Transformations
Multidimensional Calculus

PROGRAMMING

Over 30000 lines:
C++
Over 1000 lines:
C • C++17 • SML • Python • Bash
Tools:
OpenGL • Win32 • Linux • Git(Hub)

EXPERIENCE

NVIDIA | 3D Graphics Software Intern
Summer 2019 | Santa Clara, CA
- Constructed automated testing service measuring OpenGL/Vulkan graphics performance on embedded Linux devices. Service used by the embedded team to catch regressions and bring-up new silicon.
- Profiled and diagnosed OpenGL benchmark performance bugs.

MASQUERADE MEDIA INC. | Software Engineering Intern
Summer 2017 | Reno, NV
- Contributed to a mobile game production pipeline including asset processing, scripting, gameplay prototyping, and testing using Unity and Maya.
- Designed and implemented web-based promotional games driving customer acquisition.

UNIVERSITY OF NEVADA, RENO | Research Intern
May 2015 – May 2016 | Reno, NV
- Assisted in wireless networking research under Dr. Shamik Sengupta supported by NSF Grant #IIA-1301726.
- Authored and published a white paper on the subject.
- Helped plan outreach programs for STEM education.

PROJECTS

EXILE | C++, OpenGL
Jul 2017 – Present | GitHub
- *Handmade* from-scratch voxel game engine including a modern OpenGL deferred renderer, parallel voxel world generation, multiple OS layers, a custom standard library, type introspection, debugging/profiling features, and more.
- Tech blog at thenumbat.github.io.

DAWN | C++, OpenGL, SDL
Aug 2019 - Present | GitHub
- Path tracer with a focus on photo-realism and performance through data-oriented design.

VIZ.ML | C++, OpenGL, SDL
HackCMU 2018 | GitHub
- Dimensionality reduction and visualization tool for high dimensional data sets.

3D GRAPHER | C++, OpenGL, SDL
Fall 2017 | GitHub
- Visualization tool for the Davidson Academy multivariable calculus course.