

OTTAVIO HARTMAN

Philadelphia, PA 19104

hartmano@sas.upenn.edu

(585) 465-0005

<http://ottav.io>

EDUCATION

University of Pennsylvania, College of Arts and Sciences December 2018

Candidate for Bachelor of Arts in Computer Science, Cinema Studies

Cumulative GPA: 3.32/4.00

- Applicable Courses: GPU Programming, Data Structures and Algorithms, Mathematical Foundations in Computer Science, Operating Systems, Software Engineering, Intro to Machine Learning

WORK EXPERIENCE

Akuna Capital, Chicago, IL Summer 2018

C++ Development Intern

- (Project in development)

University of Pennsylvania, Philadelphia, PA Fall 2017, 2018

Head Teaching Assistant, GPU Programming (graduate course)

- Explain GPU architecture and parallel programming algorithms like reduce, scan, and stream compaction to 30+ graduate students
- Update C++ projects which use CUDA, WebGL, and Vulkan to test students' understanding of GPU programming and modern graphics techniques

Analytical Graphics Inc., Philadelphia, PA Summer 2017

Software Development Intern

- Pioneered creation of GitHub bot with JavaScript and Node.js which actively monitors and responds to the activity of a large open-source project
- Increased team productivity by moving a code linting service into a Node.js package for use across 9 repositories

Pixar Animation Studios, Emeryville, CA Spring 2017

Global Technology Intern

- Reduced memory usage for massive out-of-core shot conversions by 60% (~8GB/CPU) and time by 15% on shots in the film "The Incredibles 2"
- Further reduced shot conversion workload by introducing sparse frame conversion in place of contiguous frame conversion with C++ code

GRASP Lab, Philadelphia, PA Summer 2016

Robotics Software Researcher

- Employed point-cloud algorithms on a Raspberry Pi to detect doors in less than one second in environment of 5,000+ points
- Designed C++ software to accumulate and align LIDAR point clouds in real-time using Point Cloud Library

TECHNICAL SKILLS

- Languages/APIs: C++, C, Rust, CUDA, Python, JavaScript, GLSL, Java, Node.js, OpenGL
- 3D graphics: Deep understanding of path-tracing, rasterization, shading techniques, parallel algorithms