Eric Matthew Knapik

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Objective:
Obtain a coop for the spring and summer of 2017 with the prospect of fulltime in the field of computer graphics.

Education:
Rochester Institute of Technology
GPA: 3.77/4.0
Bachelors of Science in Computer Science **Expected Graduation 2017**

- Computational Geometry
- Computer Science Theory
- Global Illumination
- Concepts of Computer Systems
- Analysis of Algorithms
- Computer Graphics
- Multivariable and Vector Calculus
- Advanced Linear Algebra

Work Experience:
Software Engineer at Apple (June 2016 – Aug. 2016)

- Working as an iCloud Application Engineer

Software Engineer at Exablox (June 2015 – Dec. 2015)

- Used Natural Language Processing to identify and extract copyright notice and license information from packages.
- Devised a system that would search through all the opensource packages currently in use to find and extract legal notice information.

Supplemental Instruction Leader for Computer Science 1 (Fall 2014)

- Facilitated peer to peer study groups for the early development of critical computer science fundamentals.
- Empower students into proper study habits and programming skills.

Skills:

- OpenGL and GLSL
- C and C++
- Java
- Python
- Go
- Ray Tracing
- C#
- Linux, OSX, and Windows
- Natural Language Processing

Projects:
Fluid Simulation (https://github.com/EKnapik/Simple_Fluid_Sim)

- Smooth particle hydrodynamics implementation for a simple fluid simulation.
- Uses OpenGL backend for rendering.

Lighthouse Shader (https://www.shadertoy.com/view/MlSXRz)

- Raytracer using glsl fragment shader.
- Uses fractal brownian motion for realistic water, bidirectional reflectance distribution function for lighting and distance functions in scene objects.

OpenSource Copyright Extraction (https://github.com/EKnapik/license-extract)

- Uses machine learning to tag parts of speech then using regular expressions and a DFA determines which comments in source code are copyright notices and then extracts them.

Awards:

- Computer Science House Member
- RIT Dean's List
- Eagle Scout and member of the Order of the Arrow (honor society)