Peter Mocarski

(847) 596-1304 | pmm248@cornell.edu | www.pmocarski.com | peter-mocarski

Education

Cornell University *Ithaca, NY*
MASTER OF ENGINEERING, COMPUTER SCIENCE *2017 - May 2018*

Cornell University *Ithaca, NY*
BACHELOR OF SCIENCE, COMPUTER SCIENCE *2014-2017*
- GPA: 4.0

Experience

Optiver *Chicago, IL*
SOFTWARE DEVELOPER, INTERN *Summer 2017*
- Part of the Automated Trading Systems (Delta One) team, responsible for developing low-latency, high frequency trading systems
- Parallelized an end-to-end testing framework to increase performance while ensuring safe concurrent execution of processes
- Worked in Python and C++

Intentional Software (acquired by Microsoft) *Bellevue, WA*
SOFTWARE DEVELOPER, INTERN *Summer 2016*
- Part of the Layout and UI Assets team
- Implemented and demoed an integrated date picker tool in C# with multi-dimensional animations, gesture recognition, and customizable visual themes
- Heavy focus on layout optimization, with integration of lazy evaluation and tree-based caching

Department of Computer Science, Cornell University *Ithaca, NY*
TEACHING ASSISTANT (CS 4820: ALGORITHMS, CS4320: DATABASES, AND ECE2300: COMPUTER ORGANIZATION) *2015 - Present*
- Lead lab sessions and office hours
- Administer exams and grade student submissions

Projects

PRAC-MAN 3D *Cumulative Course Project*
CO-CREATOR (4 PERSON TEAM) *Spring 2017*
- Web-based 3D implementation of PAC-MAN themed as a fast-paced horror game
- Implemented in WebGL and JavaScript

Ray-Tracing Image Renderer *Cumulative Course Project*
CO-CREATOR (2 PERSON TEAM) *Spring 2017*
- Simulates the way photons propagate through space, aiming to produce photorealistic computer-generated images
- Renders shadows, optical effects, textures, multiple shading models, and surface materials such as glass and metal
- Implemented in Java

ConsTableaux *Featured at BOOM 2017*
CO-CREATOR (3 PERSON TEAM) *Fall 2016*
- Automated theorem prover and interactive proof visualizer based off of the method of analytic tableaux for propositional logic
- Implemented in Scala and JavaScript (D3.js)

Pokémon Pebble Edition *Winner at RIT Brick Hackathon 2015*
CO-CREATOR (3 PERSON TEAM) *Spring 2015*
- Mobile, location-based version of Pokémon integrated with the Pebble smart watch
- Implemented in Java and JavaScript

Skills

Languages & Technologies	Java, C#, C, OCaml, Python, WebGL, JavaScript, Verilog HDL, ARM Assembly, LaTeX, Git
Practical	Graphics, Artificial Intelligence, Natural Language Processing, Machine Learning, Databases
Theoretical	Algorithms, Cryptography, Functional Programming, Applied Logic, Networks II
Hardware-Oriented	Operating Systems, Embedded Systems, Digital Logic and Computer Organization