

Peter Mocarski

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Education

Cornell University

MASTER OF ENGINEERING, COMPUTER SCIENCE

Ithaca, NY

2017 - May 2018

Cornell University

BACHELOR OF SCIENCE, COMPUTER SCIENCE

Ithaca, NY

2014-2017

- GPA: 4.0

Experience

Optiver

SOFTWARE DEVELOPER, INTERN

Chicago, IL

Summer 2017

- Part of the Automated Trading Systems team, responsible for developing low-latency, high frequency trading systems
- Parallelized part of an existing framework to increase performance while ensuring safe concurrent execution of threads
- Worked with Python and C++

Intentional Software (acquired by Microsoft)

SOFTWARE DEVELOPER, INTERN

Bellevue, WA

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

TEACHING ASSISTANT (CS 4820: ALGORITHMS, CS4320: DATABASES, AND ECE2300: COMPUTER ORGANIZATION)

Ithaca, NY

2015 - Present

- Lead lab sessions and office hours
- Administer exams and grade student submissions

Projects

PRAC-MAN 3D

CO-CREATOR (4 PERSON TEAM)

Cumulative Course Project

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

CO-CREATOR (2 PERSON TEAM)

Cumulative Course Project

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

CO-CREATOR (3 PERSON TEAM)

Featured at BOOM 2017

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

CO-CREATOR (3 PERSON TEAM)

Winner at RIT Brick Hackathon 2015

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, WebGL, SQL, Verilog HDL, ARM Assembly, JavaScript, 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