

Peter Mocarski

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Education

Cornell University

MASTER OF ENGINEERING, COMPUTER SCIENCE

Ithaca, NY

2017 - May 2018 (Anticipated)

Cornell University

BACHELOR OF SCIENCE, COMPUTER SCIENCE

Ithaca, NY

2014-2017

- GPA: 4.00

Experience

Optiver LLC

INCOMING SOFTWARE DEVELOPER, INTERN

Chicago, IL

Summer 2017

- I will be a part of the Automated Trading Systems team, responsible for developing low-latency, high frequency trading algorithms

Intentional Software (acquired by Microsoft)

SOFTWARE DEVELOPER AND ANALYST, 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

Ray-Tracing 3D Image Renderer

CO-CREATOR (2 PERSON TEAM)

Cumulative Course Project

Spring 2017

- Simulates the way light propagates through space and interacts with objects
- Renders shadows, light reflectance, and textures with support for multiple camera types and surface shading models
- Implemented in Java

First Person PAC-MAN

CO-CREATOR (4 PERSON TEAM)

Cumulative Course Project

Spring 2017

- 3D implementation of PAC-MAN envisioned as a first person horror game.
- Implemented in WebGL and JavaScript

ConsTableaux (Featured at BOOM 2017)

CO-CREATOR (3 PERSON TEAM)

Side Development

Fall 2016

- Automated theorem prover and interactive proof visualizer based off of the method of analytic tableaux for propositional logic
- Proofs are presented as visual tree structures with collapsible nodes and step-by-step evaluation
- Implemented in Scala and JavaScript (D3.js)

Pokémon Pebble Edition (Winner at BrickHack 2015)

CO-CREATOR (3 PERSON TEAM)

RIT Brick Hackathon

Spring 2015

- Mobile, location-based version of Pokémon integrated with the Pebble smart watch
- Implemented in JavaScript and Java

Skills

Languages & Technologies

Java, C#, C, OCaml, WebGL, SQL, Verilog HDL, ARM Assembly, JavaScript, LaTeX, Git

Practical

Graphics, Databases, Artificial Intelligence, Data Structures

Theoretical

Algorithms, Cryptography, Functional Programming, Applied Logic, Networks II

Hardware-Oriented

Operating Systems, Embedded Systems, Digital Logic and Computer Organization