Peter Mocarski

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Education

Cornell University *Ithaca, NY*

Master of Engineering, Computer Science *2017 - May 2018*

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Cornell University *Ithaca, NY*

Bachelor of Science, Computer Science *2014-2017*

- GPA: 4.05 / 4.3

Experience

Optiver LLC *Chicago, IL*

Incoming Software Developer, Intern *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) *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*

- 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
- Supports shadows, optical effects, textures, multiple shading models, and surface materials such as glass and metal
- Implemented in Java

ConsTableaux (Featured at BOOM 2017) *Side Development*

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
- 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) *RIT Brick Hackathon*

Co-Creator (3 Person Team) *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