Peter Mocarski

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Education

Cornell University — *Ithaca, NY*

Master of Engineering, Computer Science — *2017 - May 2018 (Anticipated)*

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Cornell University — *Ithaca, NY*

Bachelor of Science, Computer Science — *2014-2017*

- GPA: 4.00

Experience

Optiver — *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 Corporation — *Bellevue, WA*

Software Developer and Analyst, 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

Ray-Tracing 3D Image Renderer — *Cumulative Course Project*

Co-Creator (2 Person Team) — *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 — *Cumulative Course Project*

Co-Creator (4 Person Team) — *Spring 2017*

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

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, Natural Language Processing, Artificial Intelligence, Machine Learning
Theoretical	Algorithms, Cryptography, Functional Programming, Applied Logic, Networks II
Hardware-Oriented	Operating Systems, Embedded Systems, Digital Logic and Computer Organization