Peter Mocarski

838 Shibley, Park Ridge, IL 60068

(847) 596-1304 | pmm248@cornell.edu | linkedin.com/in/peter-mocarski

Education

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

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 *CS 4620 (Graphics) Project*
CO-CREATOR (2 PERSON TEAM) *Spring 2017*
- Developed a renderer which 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

Constableaux *Side Development*
CO-CREATOR (3 PERSON TEAM) *Fall 2016*
- Constableaux is an automated theorem prover, interactive proof visualizer and educational tool based off of the method of analytic tableaux for first-order 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 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, C++, SQL, Verilog HDL, ARM Assembly, JavaScript, WebGL, LaTeX, Git
Theoretical Coursework Analysis of Algorithms, Cryptography, Functional Programming, Applied Logic, Networks II
Practical Coursework Graphics, Database Systems, Artificial Intelligence, Operating Systems, Data Structures
Hardware-Oriented Coursework Embedded Systems, Digital Logic and Computer Organization
Other Number Theory, Discrete Structures, Applicable Algebra, Linear Algebra, Marketing