

WILLIAM B. THOMASON

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ABOUT ME

I am an intelligent, skilled, and driven computer scientist and software engineer. I am seeking a challenging and enriching internship in computer science through which I can apply and grow my skillset. I want the opportunity to demonstrate and improve my abilities as a programmer, analytic thinker, and team member. In my free time, when I'm not working on a side project, I run, play the saxophone, and do parkour. I love a good challenge, and regularly compete in hackathons, design competitions, and case competitions.

EDUCATION AND HONORS

Cornell University, Department of Computer Science

- First year PhD student, researching algorithms for robotics

University of Virginia, School of Engineering and Applied Science

- Rodman Scholar, Intermediate Honors, Dean's List
- Computer Science and Mathematics Major
- **Overall GPA:** 3.8
- **CS GPA:** 4.0
- Coauthored publication in submission to IEEE TETC – "An Accurate Real-Time RFID-Based Location System"
- Taught introductory class on robotics using quadcopters

SELECTED PROFESSIONAL EXPERIENCE

Microsoft, Redmond, WA (2013-2014)

Software Development Engineer Intern – Microsoft Accounts Client Team

- Implemented and tested cryptographic operations and network protocol for forthcoming feature in Microsoft Accounts Android app. The implemented feature enables more convenient and more secure sign-in for Microsoft accounts via mobile devices.
- Coordinated the work of several other interns working on related components of the same project to ensure successful integration and delivery of the fully-functional feature ahead of schedule.

Software Development Engineer Intern – Xbox LIVE Cloud Security

- Designed, implemented, and shipped a RESTful web service capable of logging and auditing security records in Xbox LIVE in real time. Also designed, created, and tuned associated database and procedures. Service is currently in use in the Xbox LIVE network.
- Spearheaded and completed a total rewrite of an important development library – starting with old, cobbled together library used across principal components of the Xbox LIVE network, redesigned and reimplemented the entire library to provide a faster and easier to use interface to the same core functionality.

Genworth Financial, Richmond, VA (2012)

IT Intern

- Created new and revised old technical documentation for Genworth's knowledge base, wrote software to process a large number of lease records, implemented the use of the eFront training CMS and migrated old training materials to eFront.

Optical Alchemy, Concord, MA/ Nashua, NH (2009-2011)

Software Development Intern

- Created control software for a mobile test platform for a gimbaled camera, designed and implemented an automated functional test suite for an embedded CPU/I/O stack, and created a gesture based control system using the Microsoft Kinect for a gimbaled camera. (Three summer internships)

RELEVANT SKILLS, COURSEWORK, AND PROJECTS

- Proficient in the following computer programming languages: C++, C, C#, Java, Python, Rust, Haskell, OCaml, Mathematica, LabView, SQL
- CS 2150: Program and Data Representation, CS 3102: Theory of Computation, CS 4710: Artificial Intelligence, MATH 3240: Complex Variables, APMA 3100: Probability, ECE 2066: Science of Information, APMA 2130: Ordinary Differential Equations, CS 3240: Software Engineering, CS 4102: Algorithms, CS 2330: Digital Logic Design, MATH 5651: Advanced Linear Algebra, CS 4414: Operating Systems, CS 4810: Computer Graphics, MATH 5652: Intro to Abstract Algebra, CS 6610: Graduate Programming Languages, MATH 5310: Introduction to Real Analysis, CS 6161: Graduate Algorithms, ENGR 3502: Humanoid Robotics, CS 6501: Graduate Computer Vision
- **2014:** Led software team developing small RTOS for high-altitude balloon-borne sensor payload capable of streaming live video and sensor data to a ground station and receiving commands for camera movement (side project at Microsoft).
- **2014:** Created Kinect-based room automation system capable of responding to voice and gesture commands to control lighting, door lock, media playback, and other parameters. System was designed to be fully extensible with further control modules.
- **2015:** Designed spherical rolling robot with onboard camera and speakers for experimentation with socially interactive robotics (currently under construction).