

# Alex Dahl

Halethorpe, MD 21227

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[ardahl.github.io](http://ardahl.github.io)

## Education

**Bachelors of Science, Computer Science**, Recieved December 2015  
University of Minnesota-Twin Cities, Minneapolis MN  
GPA: 3.55

**PhD, Computer Science**, Started August 2016  
University of Maryland Baltimore County, Baltimore MD

## Coursework

Physically-based Animation, Fundamentals of Computer Graphics II, Program Design and Development, Design and Analysis of Algorithms, Numerical Analysis

## Skills

Proficient in the languages C, C++, Python, Java  
Ability to write and communicate with clarity  
Able to collaborate with a team effectively

## Projects

**Intelligent Ground Vehicle Competition, GOFIRST** Fall 2012-Jun. 2015  
**Autonomous Snowplow Competition, GOFIRST** Fall 2014-Current

- Worked in a team to solve problems relating to autonomous navigation
- Worked individually to implement parts of the robot software and electrical design
- Developed and maintain code for the robots sensor and pathing systems
- Utilized existing robotics packages combined with our own code to develop a solution

## Jobs

**Usability Lab Assistant** Nov. 2013-Dec. 2015  
**University of Minnesota**, Minneapolis, MN

- Managed the participant recruiting process for multiple concurrent usability projects
- Served as a receptionist managing participant paperwork
- Provided audio and video support during evaluations
- Assisted University's tech support phone line

**Undergraduate Teaching Assistant** Jan. 2015-May 2016  
**University of Minnesota**, Minneapolis, MN

- Teaching assistant for the following classes:
  - Introduction to C/C++ for Scientists and Engineers
  - Introduction to Algorithms and Program Development
  - Elementary Computational Linear Algebra
- Explained the basics of the language and general programming concepts to a large number of students
- Evaluated homework and tests and held office hours to ensure students understood course concepts

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Aug. 2016-Present

## **Graduate Assistant**

**University of Maryland Baltimore County**, Baltimore, MD

- Teaching Assistant for Introduction to Computer Graphics
- Explained graphics concepts such as raytracing and rasterization
- Evaluated homework and tests and held office hours to ensure students understood course concepts
- Taught lecture when filling in for the professor

## **Volunteer and Extracurricular Activities**

### **GOFIRST Booth Volunteer**

Nov. 2012-Aug. 2016

**Various Events**, Minneapolis, MN

- Managed large groups of kids
- Explained beginner robotics concepts in a way that kids could understand
- Presented info on FIRST robotics to parents to help get them interested

### **FIRST Volunteer**

Fall 2013-Present

**Various Events**, Twin Cities, MN

- Volunteered to help with various FIRST competitions
- Applied technical skills to assist teams with troubleshooting and inspection
- Worked in a team to help make the event run smoothly
- Provide rules expertise in robotics competitions

### **Video Game Development Club**

Fall 2013-Dec. 2015

- Developed game concepts and tech demos
- Utilized various tools to assist in developing games
- Developed AI and procedural systems to be used in games