

# Alex Dahl

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## Education

<sup>†</sup> Indicates expected

2016–2021 <sup>†</sup> Ph.D., Computer Science, University of Maryland Baltimore County

2012–2016 B.Sc., Computer Science, University of Minnesota

## Papers

- [1] Alex Dahl and Adam Bargteil. “Early Termination of Conjugate Gradients for Corotated Finite Elements”. In: *Motion, Interaction and Games*. MIG ’19. Newcastle upon Tyne, United Kingdom: Association for Computing Machinery, 2019. ISBN: 9781450369947. DOI: [10.1145/3359566.3360080](https://doi.org/10.1145/3359566.3360080). URL: <https://doi.org/10.1145/3359566.3360080>.
- [2] Alex Dahl and Adam Bargteil. “Global Momentum Preservation for Position-Based Dynamics”. In: *Motion, Interaction and Games*. MIG ’19. Newcastle upon Tyne, United Kingdom: Association for Computing Machinery, 2019. ISBN: 9781450369947. DOI: [10.1145/3359566.3360078](https://doi.org/10.1145/3359566.3360078). URL: <https://doi.org/10.1145/3359566.3360078>.

## Posters

- [3] Alex Dahl and Adam Bargteil. “Global Momentum Preservation for Position-based Dynamics”. July 2019. Symposium on Computer Animation 2019.

## Coursework

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

## Appointments

- 2017–19 Research Assistant, Computer Science, University of Maryland Baltimore County
  - Research in physics-based animation under Dr. Adam Bargteil

- 2016,2018–19 Teaching Assistant, Computer Science, University of Maryland Baltimore County
- Held office hours and graded assignments for combined grad/undergrad class.
  - Graded assignments for a class of 30-40 students.
  - Taught concurrent lectures when professor was unavailable.
- 2015–16 Undergraduate Teaching Assistant, Computer Science, University of Minnesota
- Held office hours and graded assignments.
  - Ran programming labs.
  - Ran discussion section when instructor unavailable.
- 2014–16 Usability Assistant, Office of Information Technology, University of Minnesota
- Assisted in running user experience testing for a variety of types of software
  - Ran recording and tracking equipment in lab
  - Recruited and scheduled for concurrent projects
  - Developed Excel plugins to automate scheduling work

## Teaching Assistant

2016 Fall	CMSC435/634, Computer Graphics	UMBC
2016 Spring	CSCI2033, Linear Algebra	University of Minnesota
2015 Fall	CSCI1913, Intro to Algs. and Program Dev.	University of Minnesota
2015 Spring, Summer	CSCI1113, Intro to C/C++	University of Minnesota

## Grader

2018 Fall - 2019 Fall	CMSC435/634, Computer Graphics	UMBC
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## Professional Activities

- Team Member, GOFIRST Student Group IGVC Software Team, 2012–2014
- Team Member, GOFIRST Student Group Autonomous Snowplow Software Team, 2014–2017
- Volunteer, FIRST FRC and FTC Competitions, 2012–2017