Alex Dahl

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Education

† *Indicates expected*

2016–2021 † 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. 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. 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

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