

Liane E. Makatura

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EDUCATION

June 2017 **Dartmouth College**, Hanover, NH
GPA 3.89/4.00 *Bachelor of Arts in Computer Science and Mathematics, Minor in Digital Arts (Expected)*
Coursework: Computational Photography | Fabrication | Graphics | Vision | Numerical Methods | Algorithms
Visual Recognition | Artificial Intelligence | Digital Electronics | 3D Modeling & Animation

June 2013 **Bangor Area High School**, Bangor, PA
Valedictorian | High School Scholar, Lehigh University (2013-2014)
Hugh O'Brien Youth Leadership Award | Presidential Volunteer Service Award (Bronze)

AWARDS

Mar. 2016 Goldwater Award, Honorable Mention, Barry Goldwater Scholarship and Excellence in Education Foundation

Mar. 2016 Women-in-Technology Scholarship, Adobe Research

Nov. 2015 Francis L. Town Scientific Prize, Dartmouth College

May 2015 James O. Freedman Presidential Scholarship, Dartmouth College

Mar. 2015 Neukom Scholar, Neukom Institute for Computational Science

EXPERIENCE

Sept. 2015-present **Visual Computing Lab (VCL)**, Dartmouth College, Hanover, NH
Research Assistant for Dr. Emily Whiting

- Develop reconstruction and fabrication pipeline to replicate natural rock-climbing routes in an indoor climbing gym
- Co-authored a project submission that is currently under review for conference publication

Sept. 2014-present **Department of Computer Science**, Dartmouth College, Hanover, NH
Teaching Assistant: Intro Programming | Object Oriented Programming | 3D Animation | Artificial Intelligence
Grader: Algorithms

- Manage and grade assignments and exams for sections of 10-12 students
- Review, clarify, and enhance course material by staffing lab hours and conducting weekly recitation sections
- Create, explain, and deliver recitation content and coding drills in Python and Java; provide technical assistance for Maya

June 2014-present **Neukom Digital Arts Leadership and Innovation (DALI) Lab**, Dartmouth College, Hanover, NH
Lead Developer | Student Staff | Mentor | Project Manager | Designer

- Seek innovative and effective solutions to real world problems via iterative design and implementation
- Advise 15-20 project teams of 3-4 students, and help run weekly meetings, open lab hours, member trainings, etc.
- Designed and developed several websites and a simple PHP authentication system

June 2016-Sept. 2016 **Creative Technologies Lab (CTL)**, Adobe Research, Seattle, WA
Research Intern, advised by Dr. Daniel Kaufman and Dr. Wilmot Li

- Conceptualize and develop a fabrication-aware system for the intuitive design of fabricable Intarsia (wood mosaic) pieces
- Frame our solution in a way that is generalizable to other domains, to work toward a unified, comprehensive workflow for physical graphic design

Jan. 2014-June 2014 **Women in Science Program (WISP)**, Dartmouth College, Hanover, NH
Research Intern for Dr. Christopher Bailey-Kellogg

- Visualized data from a study on the efficacy of various influenza vaccines using hierarchical clustering in R to detect patterns and meaningful relationships in the datasets
- Presented results at the Karen E. Wetterhahn Science Symposium

WORK AND LEADERSHIP

July 2016 **SIGGRAPH Student Volunteer**, Anaheim, CA

Sept. 2015-present **Women in Science Program (WISP)**, Dartmouth College, Hanover, NH
Peer Mentor

Sept. 2014-present **Office of Residential Education**, Dartmouth College, Hanover, NH
Undergraduate Advisor for a floor of 34 first-year students

Mar. 2014-present **Office of Undergraduate Admissions**, Dartmouth College, Hanover, NH
Master Tour Guide | Tour Guide Trainer | Reception Area Assistant | Visitor Relations Intern

Sept. 2013-present **Student Accessibility Services**, Dartmouth College, Hanover, NH
Note-taker | Tutor (termly, as needed)

SKILLS

Languages: Proficient in Python, Java, C, C++, C#, HTML, CSS, Unix Shell Scripting; Exposure to PHP, Ruby, R
Software/Frameworks: Proficient in LaTeX, MATLAB, Maya, Photoshop, Unity; Exposure to Laravel, RStudio, Mathematica