

# Srinjita BHADURI

[srinjitabhaduri.com](http://srinjitabhaduri.com) [Github](#) [Google Scholar](#) [LinkedIn](#)

## RESEARCH INTERESTS

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Human Computer Interaction, Educational Technology, 3D Printing, and Augmented Reality.  
*I am interested in looking at ways to enhance 3D modeling and spatial thinking skills in novice users using Augmented Reality as a scaffold.*

## PERSONAL DATA

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ADDRESS: 1475 Folsom Street, Apt387, Boulder, Colorado - 80302.  
PHONE: (720)660-3932  
EMAIL: [srinjita.bhaduri@colorado.edu](mailto:srinjita.bhaduri@colorado.edu)

## EDUCATION

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2016 CURRENT	PhD Student, Computer Science <i>University of Colorado Boulder</i> ADVISOR: <a href="#">Dr. Tamara Sumner</a>
	Graduate Certificate in Cognitive Science <i>University of Colorado Boulder</i>
MAY 2016	M.S., Computer Science <i>University of Colorado Boulder</i> ADVISOR: <a href="#">Dr. Tom Yeh</a>
MAY 2013	Bachelor of Technology, Computer Science and Engineering <i>Techno India College of Technology, West Bengal, India</i>

## PROFESSIONAL EXPERIENCE

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Jan 2016 CURRENT	Graduate Research Assistant working with Dr. Tamara Sumner <i>University of Colorado Boulder</i>
Aug 2014 DEC 2015	Graduate Teaching Assistant <i>University of Colorado Boulder</i>
Dec 2013 JUNE 2014	Programmer Analyst Trainee <i>Cognizant Technology Solutions, Levi's Strauss project</i> Developed automation tool in VB script for day-to-day activities performed by Support team

## PUBLICATIONS

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### JURIED CONFERENCE PAPERS

1. S. Bhaduri, K. V. Horne, and T. Sumner. Designing an Informal Learning Curriculum to Develop 3D Modeling Knowledge and Improve Spatial Thinking Skills. (To appear) In *Proceedings of the 2019 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (ACM).

### PEER REVIEWED CONFERENCE PAPERS

1. P. Chilana, N. Hudson, S. Bhaduri, P. Shashikumar, and S. K. Kane. (2018). Supporting Remote Real-time Expert Help: Opportunities and Challenges for Novice 3D Modelers. In *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing* (VL/HCC '18). [PDF](#)
2. S. Bhaduri, K. V. Horne, J. Ristvey, R. Russell, and T. Sumner. (2018). Learning Engineering Practices Through Drones: Iterative design of an informal learning curriculum. In *Proceedings of the 13th International Conference of the Learning Sciences* (ICLS). [PDF](#)
3. S. Bhaduri, K. V. Horne, J. Ristvey, R. Russell, and T. Sumner (2018). From toys to tools: UAVs in middle-school engineering education (RTP). In *2018 ASEE Annual Conference Exposition, Salt Lake City, Utah*. [PDF](#)
4. S. Bhaduri, P. Gyory, and T. Sumner. (2018). "Enhancing 3D Modeling with Augmented Reality in an after-school engineering program". In *2018 ASEE Annual Conference Exposition, Salt Lake City, Utah*. [PDF](#)

5. M. Skirpan, N. Beard, S. Bhaduri, C. Fiesler, and T. Yeh (2018). Ethics Education in Context: A Case Study of Novel Ethics Activities for the CS Classroom. In *Proceedings of the SIGCSE technical symposium on Computer science education (SIGCSE'18)*, **Third Best Paper in the Track: Experience Reports and Tools**. [PDF](#)
6. S. Bhaduri, J. G. O. Tovar, and S. K. Kane. (2017). Fabrication Games: Using 3D Printers to Explore New Interactions for Tabletop Games. In *Proceedings of the 2017 ACM SIGCHI Conference on Creativity and Cognition*. Singapore. [PDF](#)
7. S. Bhaduri. (2017). Using 3D Modeling and Prediction as a Lens into Student Design Processes. In *Proceedings of the 2017 ACM SIGCHI Conference on Creativity and Cognition*. Singapore. [PDF](#)

#### BOOK CHAPTERS

1. S. Bhaduri, A. Gendreau, V. S. Koushik, T. Sumner, J. Ristvey, and R. Russell. (2018). Promoting Middle School Students' Motivation and Persistence in an After-School Engineering Program (J. Barnes-Johnson and J. M. Johnson, Eds.). In *STEM21: Equity in teaching and learning to meet global challenges of standards, engagement and transformation*. [DOI](#)

#### POSTERS PRESENTED

1. S. Bhaduri, K. V. Horne, P. Gyory, H. N. Ngo, and T. Sumner. (2018) Enhancing 3D Modeling with Augmented Reality in an after-school engineering program. Poster presented at *ASEE Zone IV Conference 2018*.
2. S. Bhaduri, J. Ristvey, R. Russell, and T. Sumner. (2017). Promoting Middle School Students Motivation, Persistence, and Career Awareness in an After-school Program. Poster presented at the *annual STELAR ITEST PI and Evaluator Summit*.

#### AWARDS AND HONORS

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- 2019 **CRA-W Grad Cohort**
- 2018 **CU Science Ambassador**, *University of Colorado Boulder*  
**Outstanding Service Award**  
*Department of Computer Science, University of Colorado Boulder*
- 2017 **Lab Manager** for [Sumner Lab](#) (2017 - PRESENT)  
*Creativity and Cognition, 2017 Graduate Student Symposium, Singapore*
- 2016 **Early Career Professional Development Award**  
*Department of Computer Science, University of Colorado Boulder*
- 2015 **Outstanding Teaching Assistant**  
*Department of Computer Science, University of Colorado Boulder*  
**Best User Interaction** – HackCU organized by University of Colorado Boulder

#### TEACHING EXPERIENCE

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- Summer'18 **Lecturer, CU Science Discovery, Boulder**  
3D Printing and Wearable Electronics Academy
- Summer'17 **Grader, CS Department, University of Colorado Boulder**  
Human Centered Computing and Development (CSCI 3002)
- Summer'16 **Teaching Assistant, CS Department, University of Colorado Boulder**  
Software Methods and Tools (CSCI 3308)
- Fall'15 **Teaching Assistant, CS Department, University of Colorado Boulder**  
Software Methods and Tools (CSCI 3308)
- Summer'15 **Lecturer, CU Science Discovery, Boulder**  
3D Printing camp  
**Teaching Assistant, CS Department, University of Colorado Boulder**  
Software Methods and Tools (CSCI 3308)
- Spring'15 **Teaching Assistant, CS Department, University of Colorado Boulder**  
Intro to Programming - Level II (CSCI 1310)
- Fall'14 **Teaching Assistant, CS Department, University of Colorado Boulder**  
Software Methods and Tools (CSCI 3308)  
**Grader, CS Department, University of Colorado Boulder**  
Intro to Programming (CSCI 1300)

#### SERVICE

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- CS Graduate Student Representative:** Graduate Student Advisory Board (GSAB)  
College of Engineering and Applied Science (CEAS), *University of Colorado Boulder*
- Core-Member:** CS Graduate Student Association (CSGSA), *University of Colorado Boulder*
- Paper Review:** ASEE('17-'18), CHI User Studies('18), Human Computer Interaction Journal('18), IDC ('19) Full & Short Papers
- Student Volunteer:** C&C'17

## INVITED TALKS

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**Guest Speaker - User Centered Design (CSCI 5839)**, University of Colorado Boulder

Discussed different approaches to *Hardware and Rapid Prototyping*

**Teen's Science Cafe, Denver, CO**

Co-presented talk on *Designing Tactile Pictures with Craft Materials for 3D Printing*

## MENTORING EXPERIENCE

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Spring'19 **Kellen Kennedy**

Undergraduate student in Biological and Chemical Engineering, University of Colorado Boulder  
*Approaches to design 3D modeling user studies*

Fall'17-Spring'18 **Peter Gyory**

Masters student in ATLAS Institute  
*Designing Augmented Reality app to help support 3D modeling*

**Hannie Ngo**, Discovery Learning Apprentice

Undergraduate student in CS, University of Colorado Boulder

Fall'16-Spring'17 **Jesus Ortiz Tovar**, Discovery Learning Apprentice

Undergraduate student in CS, University of Colorado Boulder  
*Using 3D Printers to Explore New Interactions for Tabletop Games*

Summer'15 **Lindsey Welch, Chantelle Humphries, 3D Printed braille**

**Dinah Bowman, Nueka Lo,**

*Post-processing Techniques to Enhance Tactile Textures*

Summer Research Mentor Program (REM) for high school students through CU Science Discovery.

(Results were invited and presented at the White House)

## COMPUTER SKILLS

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Proficient: Python, C/C++, Java, JavaScript, HTML5/CSS

Experienced: Unity, C#, R, three.js

## RELEVANT SKILLS

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3D Modeling (TinkerCAD, SketchUp, Open(J)SCAD, OnShape, Fusion 360), 3D Printing, Laser Cutting, Unity game design, Augmented Reality, User studies, Design survey instruments.