

# Akshit Arora

<https://aroraakshit.github.io/>

[akshit.arora@colorado.edu](mailto:akshit.arora@colorado.edu)

+1 (720) 618-7199

## EDUCATION

- **University of Colorado** Boulder, CO  
*Master of Science in Computer Science (Specialization: Artificial Intelligence)* *Aug. 2017 – Present*
- **Thapar University (TU)** Patiala, India  
*Bachelor of Engineering in Computer Engineering; GPA: 3.67 (Major), 3.37 (Overall)* *Aug. 2013 – Jul. 2017*

## PROGRAMMING SKILLS

- **Languages:** Python, C++, SQL, PHP, C# **Technologies:** Tensorflow, Unity 3D, Vuforia, MongoDB, D3
- **Graduate Courses:** Neural Networks & Deep Learning; Design & Analysis of Algorithms
- **Tools:** Palisade Decision Tools (@RISK & Evolver), SLURM, NeuLog API, InquisitLab, Qualtrics

## EXPERIENCE

- **Indian Institute of Technology (IIT), Mandi** Himachal Pradesh, India  
*Research Intern at the Applied Cognitive Science Lab* *Jun 2015 - Jul 2017*
  - **Interactive Landslide Simulator (ILS):** Developed a web-based research tool to balance public risk perceptions and how people at risk could adapt, to and mitigate the landslides in their neighbourhood. [pratik.acslab.org](http://pratik.acslab.org)
  - **Marker-based and GPS-based Augmented Reality (AR):** Explored various libraries for AR based application development including, Google Tango, Microsoft Holo-lens, Wikitude SDK, ARToolkit & KudanAR. Built a tool (android application) for training military personnel in different cognitive loads. Responsible for making AR simulations similar to scavenger hunt and first-person-shooter games using Vuforia.
  - **Monitoring physiological sensors in real-time:** Integrated sensors for measuring blood pressure, galvanic skin response, heart rate and respiration (by NeuLog) to the AR simulations for military personnel.
  - **Research:** Gave oral presentations in 3 domestic and 1 international conferences. Wrote 1 Journal Paper and 1 Book Chapter (see details in the Projects section)
- **University of Colorado** Boulder, CO  
*Grader and Teaching Assistant at the Department of Computer Science* *Aug 2017 - Present*
  - **Teaching Assistant - The Art of Computational Thinking:** Responsible for conducting lab sessions, holding office hours, interview-based grading, solving doubts and prepare assignments for 200+ students.
  - **Grader - Human-Centered Computing:** Responsible for grading assignments for 150+ students.

## PROJECTS AND PUBLICATIONS

- **Implementing Deep Knowledge Tracing:** Using a Recurrent Neural Network to predict student's performance given their interaction with online learning material. Project in collaboration with WootMath, a start-up based in Boulder, CO. **Using:** MongoDB, Tensorflow, Pandas, scikit-learn. Working in a team of 2. Based on: [goo.gl/EAmj92](https://goo.gl/EAmj92)
- **Marker-based Augmented Reality (AR):** Developed a *scavenger-hunt* scenario in AR as an android application for training military personnel. **Using:** Vuforia, Unity 3D. Worked in a team of 2. Link: [goo.gl/55EU1a](https://goo.gl/55EU1a)
- **Interactive Landslide Simulator: A Tool for Landslide Risk Assessment and Communication:** Chaturvedi P, [Arora A](#), Dutt V. Advances in Applied Digital Human Modeling and Simulation (Springer Books). 481: 231-243. Jul 2016. **Book Chapter.** Using: Palisade Decision Tools, PHP, MySQL. Publication Link: [goo.gl/VXGZ3J](https://goo.gl/VXGZ3J)
- **Learning in an Interactive Simulation Tool against Landslide Risks: The Role of Amount and Availability of Experiential Feedback:** Chaturvedi P, [Arora A](#), Dutt V. Natural Hazards and Earth System Sciences. 10.5194/nhess-2017-297. Sep 2017. **Journal Paper.** Publication Link: [goo.gl/P2wFCu](https://goo.gl/P2wFCu)
- **Student Evaluation Portal:** Built a tool for CS Department at TU to track and evaluate student's performance over their 6 months internship. **Using:** CodeIgniter, MySQL. Worked in a team of 4. Link: [goo.gl/zZuCTv](https://goo.gl/zZuCTv)

## LEADERSHIP ACTIVITIES

- **Travel Fellowship Award:** First person in my college to be awarded funding for presenting 3 research papers at 7th International Conference on Applied Human Factors and Ergonomics, Orlando, FL, USA by TU and IIT Mandi.
- **Co-Convener - International Forum for Leadership and Sustainability:** Organized awareness campaigns, quiz events, dog vaccination camps and creativity competitions for underprivileged students.
- **Photography:** Organized photo-walks in IIT Mandi and Thapar University. Encouraged different types of photography. Regularly update photos here: [500px.com/akshitarora](https://500px.com/akshitarora)