Akshit Arora

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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
  - **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**: A deep neural network architecture 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**; Working in a team of 2; Based on: https://goo.gl/EAmj92
- **Student Evaluation Portal**: A tool to track and evaluate student's performance over 6 months training period. **Using: CodeIgniter, Google Analytics, MySQL, KAdmin**; Worked in a team of 4; Link: goo.gl/zZuCTv
- **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**.
- **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**.
- **Interactive landslide simulator: A tool for landslide risk and damage assessment.** : Chaturvedi P, **Arora A** and Dutt V. Applied Human Factors and Ergonomics, Orlando, Florida, USA. Jul 2016. **Oral Presentation**.

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 Events**: Organized photo-walks in IIT Mandi and Thapar University. Encouraged different types of photography. Regularly update photos at 500px. (Link: 500px.com/akshitarora)