

Akshit Arora

FALL 2017 · MASTER OF SCIENCE IN COMPUTER SCIENCE

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Education

University of Colorado Boulder

MASTER OF SCIENCE IN COMPUTER SCIENCE

Boulder, CO, USA

Aug 2017 - Aug 2019 (Expected)

Thapar University (TU)

BACHELOR OF ENGINEERING IN COMPUTER ENGINEERING | CGPA: 8.3 / 10

Patiala, India

Jul 2013 - Jul 2017

Swami Sant Dass Public School (Central Board of Secondary Education (CBSE), India)

ALL INDIA SENIOR SCHOOL CERTIFICATE EXAMINATION (XII, 2013): 92.8%

ALL INDIA SECONDARY SCHOOL EXAMINATION (X, 2011): 9.4 / 10 CGPA

Jalandhar, India

Mar 2009 - Apr 2013

Internships and Projects

Applied Cognitive Science (ACS) Lab, Indian Institute of Technology (IIT) Mandi

RESEARCH INTERN

Dec 2016 - Present

- Development of human-performance modeling framework via physiological and signal processing tools for visual cognitive enhancement in IVD, VR and AR paradigms.
- The project is funded by Defence Research and Development Organisation (DRDO), India. Working under supervision of Dr. Varun Dutt.
- Technologies used: Unity 3D, C#, NeuLog Sensors, Vuforia, Google Cardboard, ARToolkit

Data Analytics and Intelligence Research Group, IIT Delhi

RESEARCH INTERN | GITHUB: [HTTPS://GITHUB.COM/AKSHITARORA/POLITICIAN_IE](https://github.com/AKSHITARORA/POLITICIAN_IE)

New Delhi, India

May 2016 - Jun 2016

- Researched on various approaches in Natural Language Processing to detect opinion.
- Under supervision of Dr. Maya Ramanath, developed heuristics to determine whether a politician supports / opposes a public policy by analyzing their tweets using Python.
- Python packages used: Scrapy, BeautifulSoup, JSON, NLTK, Twitter API, Requests.

ACS Lab, IIT Mandi

RESEARCH INTERN | LINK: [HTTP://PRATIK.ACSLAB.ORG](http://pratik.acslab.org)

Mandi, India

Jun 2015 - Present

- Developed a web-based research tool, Interactive Landslide Simulator (I.L.S.), to balance public risk perceptions and how people at risk could adapt, to and mitigate the landslides in their neighbourhood. Working under the guidance of Dr. Varun Dutt.
- Developed a REST API for ILS environment in python for applying Deep Reinforcement Learning using Tensorflow.
- Project selected for 3 oral presentations and a journal manuscript has been submitted to Computers and Geosciences and is currently under review.
- Technologies used: PHP, MySQL, Twitter Bootstrap, Qualtrics, Palisade Decision Tools, Monte Carlo Simulations, Academic Prolific.

Publications and Oral Presentations

- Chaturvedi P, **Arora A**, Dutt V. Interactive Simulation Tool for Improving Awareness and Decision Making on Landslide Risks. Journal Paper (Manuscript under review with **Journal of Risk Analysis**).
- Chaturvedi P, **Arora A**, Dutt V. Interactive Landslide Simulator: A Tool for Landslide Risk Assessment and Communication. 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" (P. Chaturvedi, **A. Arora** and V. Dutt). Applied Human Factors and Ergonomics, Jul 2016, Orlando, Florida, USA. **Oral Presentation**.
- "Influence of motivational factors on hackers' and analysts' decisions in dynamic security games" (Z. Maqbool, V. S. C. Pammi and V. Dutt). Applied Human Factors and Ergonomics, Jul 2016, Orlando, Florida, USA. **Oral Presentation**.
- "Cyber-security: Role of deception in cyber-attack detection" (P. Aggarwal, C. Gonzalez and V. Dutt). Applied Human Factors and Ergonomics, Jul 2016, Orlando, Florida, USA. **Oral Presentation**.
- "Interactive landslide simulator: A tool for landslide risk and damage assessment" (P. Chaturvedi, **A. Arora** and V. Dutt). 25th Convention of National Academy of Psychology, Feb 2016, Allahabad, India. **Oral Presentation**.

Other Achievements

2016	Received fellowship to attend Applied Human Factors and Ergonomics (AHFE) 2016 conference at Walt Disney World, Orlando, FL, USA	Orlando, USA
2015	Co-Convener at International Forum for Leadership and Sustainability (social-startup) for 2 years Successfully organized awareness campaigns, quiz events, dog vaccination camps and creativity competitions for underprivileged students around university campus.	Patiala, India
2015	Secured 3rd position in 'Capture The Flag' competition in which 15+ colleges from India participated (organized by TU).	Patiala, India
2015	Built an application for managing room allocation for about 1000 incoming students in the resident hall Worked under the guidance of a professor at TU. The application is currently used by other resident halls as well for handling the room allotment requests.	Patiala, India
2014	Worked in the design team of the best cultural festival in north India designed posters, flex and artworks for Aranya 2014 (techno-cultural festival at TU).	Patiala, India
2014	Worked at the Fine Arts and Photography Society Organized photo-walks around Patiala city, encouraged different types of photography on-campus, taught basics of DSLR photography and organized various trips to Himalayas (near IIT Mandi) for star-trails and milkyway photography.	Patiala, India
2014	Attended International Workshop on Machine Learning Algorithms and Data Analytics Organized by Institute of Electrical and Electronics Engineers (IEEE) chapter of TU.	Patiala, India
2013	Student Representative of B.E. Computer Science batch for two semesters (2013-14) Communicating and discussing issues of student community to the university management. Organizing regular student meetings to discuss topics affecting their experience at Thapar University.	Patiala, India
2011	NASA CloudSat team member Collected ground-based observation data for NASA's CloudSat program.	Jalandhar, India

Additional Skills and Relevant Coursework

Programming Languages: C, C++, C#, Python, MATLAB, PHP, HTML, CSS, JavaScript, MySQL, \LaTeX

Frameworks / Packages / Open Source Libraries: Twitter Bootstrap, CodeIgniter, Django, Impress JS, Scrapy, BeautifulSoup, JSON, NLTK, Twitter API, Requests, Tweepy, ARToolkit, Vuforia, Tensorflow

Tools / Operating Systems: GitHub, Palisade Decision Tools (@RISK and Evolver), Weka, Windows, Ubuntu, Fedora, macOS, Noobs (Raspberry Pi), Unity 3D

Coursework: Analysis and Design of Algorithms, Advanced Data Structures, Database Management Systems, Software Engineering, Data Mining and Warehousing, Artificial Intelligence, Analysis and Design of Information Systems, Natural Language Processing, Theory of Computation, Operating Systems, Principles of Programming Languages, Web Technologies, Computer Networks, Computer System Architecture

Test Scores

Graduate Record Examination - General Test (GRE by Educational Testing Service):

170 / 170 : Quantitative Reasoning (**97th** Percentile)

154 / 170 : Verbal Reasoning (**64th** Percentile)

4.0 / 6.0 : Analytical Writing (**59th** Percentile)

Test Of English as a Foreign Language - internet Based Test (TOEFL-iBT by Educational Testing Service):

26 / 30 : Reading

29 / 30 : Listening

27 / 30 : Speaking

26 / 30 : Writing