# Divyanshu Kumar Singh

Department of Computer Science and Engineering, IIIT Delhi

Website: divyanshu-krs.github.io

# **EDUCATION**

## Indraprastha Institute of Information Technology Delhi

New Delhi, India

Email: divyanshu17048@iiitd.ac.in

Bachelor of Technology - Computer Science and Engineering; GPA: 6.96 (SGPA: 8.67)

Aug 2017 - Present

Bachelor's Thesis: Understanding Social Support and Mental Well-Being Needs of LGBTQIA+ University Student's Advisor(s): Dr. Venkata Ratnadeep Suri, Dr. Jainendra Shukla

# Publications

• Divyanshu Kumar Singh, Sumita Sharma, Jainendra Shukla, Grace Eden.: "Toy, Tutor, Peer, or Pet?: Preliminary Findings from Child-Robot Interactions in a Community School", In Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (Companion-HRI '20), Cambridge, UK, Mar-2020. [PDF] [Video]

• Divyanshu Kumar Singh, Venkata Ratnadeep Suri, Jainendra Shukla: "Design for the Well-Being of LGBTQIA+ University Students", (Lightly-Peer Reviewed, Workshop Paper) in From Needs to Strengths: Operationalizing an Assets-Based Design of Technology at ACM CSCW'2020, Oct-2020. [PDF]

#### RESEARCH PROJECTS

• Ethics in Child-Robot Interaction: Studying Child-Robot Interaction in Global South, India and proposing a framework of ethics to conduct such studies. I am analyzing interaction video from our work in HRI'20, to code possible ethical issues that could emerge. (Oct 2020 - Present)

Team Member: Deepa Singh (PhD Scholar, Delhi University)

Advisor: Dr. Jainendra Shukla, Dr. Manohar Kumar

• Online Schooling During COVID Era: Interview study with teachers, students and parents of different schools in Delhi including both private and government to understand how exactly is online learning playing out for them. I recruited and interviewed teachers, students and parents from Delhi govt. schools. Translated, transcribed and then coded the interview. (Jun 2020 - Sep 2020)

Team Member: Angel Walia (Undergrad IIIT Delhi)

Advisor: Dr. Grace Eden

- Predicting Anxiety in Adults using EDA and HRV Signals: Developing a Machine Learning(ML) model using both EDA& HRV signals, to predict anxiety in adults. Novelty of this works lies in the fact that there are no pre-existing model in ML which uses these two modalities to deduce anxiety and its correlation with STAI Questionnaire. (Jan 2020 Present)

  Team Members: Pramil Panjawani (PhD Scholar IIIT Delhi), Shubhangi Butta (Undergrad IIIT Delhi)

  Advisor: Dr. Jainendra Shukla, Dr. Mrinmoy Chakrabarty
- A Survey on Perception of Adults with Autism: The aim of the project is to conduct a survey/interview to obtain the perception of adults with Autism Spectrum Disorder (ASD) in relation to the therapies and/or the interventions they received and their view and suggestions on the use of social robots for robot-assisted interventions for the cognitive well-being of the children with ASD. (Jul 2019 Present)

Advisor: Dr. Jessica Korte, Dr. Jainendra Shukla, Prof. Anubha Gupta

## Work Experience

# IIIT Delhi

Summer Research Intern — Advisor: Dr. Anuj Grover

May 2020 - Jul 2020

• Studied TRIZ (Theory of Inventive Problem Solving) in various use cases and prepared an engineering course curriculum. Individually explored a Child-Robot Interaction scenario as a problem and applied TRIZ.

#### Human-Machine Interaction Lab - IIIT Delhi

 $\label{lem:undergraduate} \textit{Undergraduate Researcher} - \textit{Advisor: Dr. Jainendra Shukla}$ 

Jul 2019 - Present

- o Studying Human-Robot Interaction and Affective Computing (Building and Studying Machine Learning Model)
- Worked with variety of population during user studies and conducted interaction/experiments with at least 60-70 people.
- $\circ \ \ Research\ Methods:\ Interviews,\ Survey,\ Data\ Analysis (Quantitative\ \&\ Qualitative),\ Focus-Group.$
- o Developed the Lab Website Currently Managing the website.

#### Summer Camp 2019 - IIIT Delhi

Coordinator — Supervisior: Ms. Sheetu Ahuja

Feb 2019 - Jun 2019

- o In 2019, 180 students from 7 different Delhi govt. school attended the summer camp.
- Designed curriculum for 'Hands on Science' module along with team of volunteers for 5 weeks of study for students of class 8 and 9; and ensuring proper execution of the camp.

# Position of Responsibilty

# Coordinator ASTRONUTS - Astronomy Club of IIIT Delhi

Conducted Sky-Observation and in-class session on Astronomy.

Aug 2018 - Jul 2019

# Professional Services

#### Peer-Reviewer

ACM/IEEE HRI'20(LBR)

# Sub-Reviewer

ICSR'20 Workshop (Child-Robot Interaction: Present and Future Relationships)

# Honors and Awards

- Selected for SIGCHI CSCW Asia Winter School 2020 (Dec 18-19) Amongst 50 Student Selected from Asia-Pacific Region
- Selected for Mentor-Mentee Program at Workshop on Interactive System in Health 2020 (AMIA'20): Matched with Dr. Oliver L. Haimson (Univ. of Michigan) and Awarded Scholarship to attend the conference.
- Most Innovative Project Annual Inter Delhi Public School Science Fair
- Runner Up District Level Basketball Championship (Jhajjar, Haryana)

#### Volunteering

- Student Volunteer for ACM/IEEE HRI'20: Among 20 selected out of 103 applicants
- Volunteer for *Roshini*: Diwali Book Donation Drive 2019 for Govt. School Students
- Volunteer for event Procon Jr. at ESYA'2017 Annual Technical Festival of IIIT Delhi