KARTIKAEYA KUMAR

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kartikaeya.github.io
LinkedIn

RESEARCH INTERESTS

Human Computer Interaction   •   AR/VR •   Machine Learning

EDUCATION

B. Tech   **Indian Institute of Technology (IIT), Guwahati**   2018-2022

Major: Electronics & Electrical Engineering
CGPA: **8.80/10** (ranked 5th /57)

Minor: Computer Science & Engineering
CGPA: 8.50/10

RESEARCH EXPERIENCE

Creativity Lab, University of California, San Diego   Sept 2021 - Present
Research Intern, Advised by: Prof. Haijun Xia
- Currently doing Literature review for identifying areas of prospective research.

RICELab, University of Toronto   May 2021 - Sept 2021
MITACS Research Intern, Advised by: Prof. Anthony Tang
- Prototyped visualization techniques for collaborative watching of 360 videos.
- Research Domain: User Experience • Multimedia Systems • CSCW

UE-HCI Lab, IIT Guwahati   Dec 2020 - May 2021
Research Intern, Advised by: Prof. Pradeep G. Yammiyavar
- Augmented Reality app to elicit user ratings for different architectural designs in buildings.
- Research Domain: AR

VIGIL Lab, IIT Hyderabad   Apr 2020 - Jul 2020
Research Intern, Advised by: Prof. C. Krishna Mohan
- Designed a novel CNN architecture for efficient 2D Human Pose Estimation.
- Research Domain: Machine Learning • Image Processing

PUBLICATIONS

[1]   **Kartikaeya Kumar**, Lev Poretski, Jiannan Li, Anthony Tang. 2021. Tourgether360: Collaborative Exploration of 360° Tour Videos using Pseudo-Spatial Navigation (under review)

SELECTED PROJECTS

FPV drone simulator for mobile VR   Apr 2021 - Present
Domain: Virtual Reality • UX design

Basic Hand Tracking & Gesture Recognition   Feb 2020 - Mar 2020
Domain: Image Processing • Machine Learning • HCI

Circuit-X, an Image Processing Challenge   Sept 2019 - Oct 2019
Domain: Image Processing

HONORS AND AWARDS

MITACS Globalink Research Internship (GRI) award   2020
Awarded for conducting research at a Canadian University.

Shastri Indo-Canadian Institute Research Grant   2020
Additional funding for conducting research under the Mitacs program.

CBSE Board Examination   2018
Awarded scholarship for outstanding performance in board examinations.

TEST SCORES

GRE: 328/340 (170 Quant, 158 Verbal)

JEE Advanced, 2018: Achieved All India Rank 5234 among 1.2 million candidates

SKILLS

Languages: C/C++ • C# • Python • HLSL[*]

Tools/Frameworks: ARCore • OpenCV • PyTorch • Numpy • Keras • LaTeX

Software: Unity • Blender • Adobe Premiere Pro