Nakul Garg

Contact Information

3245 Brendan Iribe Center
8125 Campus Drive
College Park, MD 20742

+1 202-725-1919
nakul22@umd.edu
https://www.cs.umd.edu/~nakul/

Research Interests

Mobile Computing, Wireless Networking, Low-power sensing, Underwater IoT

Education

Ph.D., Computer Science — 2019–present
University of Maryland, College Park

Bachelor of Technology, ECE — 2014–2018
Guru Gobind Singh Indraprastha University

Publications

Owlet: Enabling Spatial Information in Ubiquitous Acoustic devices
Nakul Garg*, Yang Bai*, Nirupam Roy
ACM Mobisys 2021

Demo: Microstructure-guided Spatial Sensing for Low-power IoT
Nakul Garg*, Yang Bai*, Nirupam Roy
ACM Mobisys 2021

Enabling Self-defense in Small Drones
Nakul Garg, Nirupam Roy
ACM HotMobile 2020

Poster: Acoustic Sensing for Detecting Projectile Attacks on Small Drones
Nakul Garg, Nirupam Roy
ACM HotMobile 2020

Evaluating LED-Camera Communication for Drones
Bhawana Chhaglani, Abhay Sheel Anand, **Nakul Garg**, Ashwin Ashok
ACM LioT Workshop Mobicom 2020

Poster: DRIZY- Collaborative Driver Assistance Over Wireless Networks
Nakul Garg, Ishani Janveja, Divyansh Malhotra, Chetan Chawla, Pulkit Gupta, Harshil Bansal, Aakanksha Chowdhery, Prerana Mukherjee, Brejesh Lall
ACM MobiCom 2017

Experience

Research Intern — Sept. 2018—July 2019
Computer Science Department, IIT Delhi
Advised by :, Dr. Rijurekha Sen

Technical Advisor — May 2018—Sept. 2018
Celestini Project India, Marconi Society, Google, IIT Delhi
Led by :, Dr. Aakanksha Chowdhery (Google AI) and Dr. Brejesh Lall (IIT Delhi)

Research Intern — Jun. 2017—Sept. 2017
Celestini Project India, Marconi Society, Google, IIT Delhi
Led by :, Dr. Aakanksha Chowdhery (Google AI) and Dr. Brejesh Lall (IIT Delhi)

Teaching

CMSC715 Wireless and Mobile Systems for the IoT, Fall 2021
Instructor: Prof. Nirupam Roy

CMSC420 Advanced Data Structures, Spring 2021
Instructor: Prof. David Mount

CMSC818W Wireless and Mobile Systems for the IoT, Fall 2020
Instructor: Prof. Nirupam Roy

CMSC417 Computer Networks, Spring 2020
Instructor: Prof. Nirupam Roy

CMSC420 Advanced Data Structures, Fall 2019
Instructor: Prof. Jason Filippou

Awards and Scholarships

- Best demo award MobiSys 2021 — 2021
- University of Maryland CS Summer Research Fellowship — 2021
- Travel grant HotMobile 2020, ACM SIGMOBILE — 2020
- University of Maryland Graduate School Dean's Fellowship — 2019
- Outstanding Student Volunteer Award by IEEE Delhi Section. — 2018
- Winner of World Food India Hackathon. Awarded by President of India. — 2017
- Winner of Celestini Project India 2017, IIT Delhi & Marconi Society. — 2017
- Travel grant Mobicom 2017, NSF, ACM SIGMOBILE — 2017
- 1^{st} in eYantra - National Robotics Competition, IIT Bombay — 2017
- 2^{nd} in eYantra - National Robotics Competition, IIT Bombay — 2016
- 1^{st} in Robotron TechMarathon, DDUC, Delhi University — 2014
- Among top 6 in National CBSE Science Exhibition — 2013
- 4^{th} in International Quanta, CMS School, Lucknow — 2013
- 1^{st} in Regional level CBSE Science Exhibition — 2012
- 1^{st} in Annual School Science Exhibition — 2011
- 1^{st} in Annual School Science Exhibition — 2010
- 2^{nd} in Annual School Science Exhibition — 2009

Media Coverage

- DopplerDodge: The Economist, Robotics Industry News, ...
- Aerogram: Times of India, Hindustan Times, ...

Activities Services

- Mentor at Bitcamp Research Trail 2021. An initiative to engage BIPOC students in research.
- President of the IEEE student chapter at BVP in the academic year 2017-18.
- Chairperson of the Robotics and Automation Society. Conducted 20 workshops in the academic year 2016-17.