Prerna Khanna

Contact Information

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Research Interests

Mobile Computing, IoT, Signal Processing, Robotics, Machine Learning

Education

Guru Gobind Singh Indraprastha University 2016–2020
New Delhi, India
B.Tech. in Instrumentation and Control Engineering *CGPA 8.98*

Loreto Convent School New Delhi, India
12^{th} *C.B.S.E*, *92%* 2016
10^{th} *C.B.S.E*, *CGPA: 10* 2014

Experience

Research Intern Jun. 2019—Sep. 2019
Indraprastha Institute of Information Technology, Delhi, India
Survival analysis and staging system for Multiple Myeloma
Advised by: Dr. Anubha Gupta

Research Intern May. 2018—Oct. 2018
Celestini Project India, Marconi Society, IIT Delhi, India
Developed Air Cognizer: Predicting Air Quality with Images
Led by: Dr. Aakanksha Chowdhery (Google AI) and Dr. Brejesh Lall (IIT Delhi)

Researcher and Developer Jul. 2017—Present
Endolite India Pvt. Ltd
Development of Upper Extremity Prosthetic Limbs

Trainee Dec. 2016—Jan 2017
Minda Corporation, Noida, India

Leadership Experience

- Conducting inter-college workshops to teach **programming concepts.** Aug. 2018—Present
- **Event Coordinator** at Fervour, Technovation: Technical Project Exhibition at College. 2018
- **Chapter Representative** BVP IEEE student branch. 2017 – 2018

Awards and Achievements

- Air Cognizer featured at **Google I/O 19** in a session called: "What's new in Android Machine Learning". 2019
- Presented a demo and featured in the keynote at the **TensorFlow Dev Summit 2019, Sunnyvale, CA**. 2019
- Awarded the Paul Baran Young Scholar's **Celestini Prize India**. 2018
- Winner of Project Exhibition **Evotech 2.0**. 2018

Technical Projects

- **Survival Analysis** of Multiple Myeloma for Indian cohort. 2019
- Self Healing **Mesh Network** for Autonomous Drones. 2019
- **"Mocking Bot"** Audio processing to extract notes from music and detect the instrument 2019
- "Air Cognizer" Predicting Air Quality with mobile camera images. 2018
- **"Moonshine"** Breath analyzer. 2018

- **"Vision"** IoT based SONAR System. 2018
- **"Haze removal"** in images using Dark Channel Prior. 2017
- **"Upper Extremity Prosthetic Limb"** Circuit and Software using Myo signals. 2017 - Ongoing
- **"Obstacle Avoider"** using edge detection in Python. 2017
- **"WieAssist"** A women's safety Android application. 2017
- **"CNC Machine"** using Arduino and stepper motors. 2016

SKILLS AND TOOLS

Languages: JAVA, Python, R, MATLAB, LATEX, Embedded C
Technologies: Arduino, Raspberry Pi, Android, Machine Learning, Computer Vision