

Radhika Ghosal

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EDUCATION

SEPTEMBER 2016 **IIIT-Delhi**
Graduating MAY 2019 3rd Semester, B.Tech - **Computer Science and Engineering**
GPA: 8.4/10.0 (3.36/4.0)
APRIL 2015 **The Mother's International School**, New Delhi
All-India Senior Secondary Certificate Examination (CBSE), Class XII
SCORE: 94%

INTERNSHIPS AND RESEARCH

SUMMER 2017 **École Polytechnique Fédérale de Lausanne (EPFL)**
Summer Research Intern, Processor Architecture Lab (LAP)
AUGUST 2016 **IIIT-Delhi**
– *Undergraduate Student Researcher, Program Analysis Group*
CURRENT
• Currently working on compiler optimizations for embedded systems.
• Writing transformation passes for LLVM for the AVR architecture, optimizing for power consumption.
Advisers: [Dr. Rahul Purandare](#), [Dr. Alexander Fell](#)
JULY 2016 **MIT Media Lab – LV Prasad Eye Institute, Hyderabad**
Engineering the Eye 2016, Hyderabad, India
• Contributed to the [Open Indirect Ophthalmoscope \(OIO\)](#) project, led by Prof. Ramesh Raskar, MIT.
• Added hardware support for taking medical-grade images in the dark; auto-focus and capture capabilities in IR light by detecting macular networks within a bounding box
JULY 2015 **GVC Systems, Noida**
Embedded Systems Intern
• Worked on a voice-controlled vending machine commissioned by Star TV, a popular Indian television network, as an interactive user experience to publicize [a national sports league](#). The same was deployed in Mumbai metro stations.

HONOURS AND RECOGNITION

DECEMBER 2014 Selected for the [INOI](#), the second stage of the Indian team selections for the International Olympiad in Informatics.
MAY 2013 Junior Science Talent Search Scholar ([JSTSE](#))
JUNE 2012 Was one of the youngest people to complete MIT's first MOOC offered, [6.002x](#), Circuits and Electronics.
Was featured in various international newspapers like the [Die Zeit](#), [The Telegraph](#), and other [popular publications](#).

SKILLS

HARDWARE: Embedded C, Verilog, Processing, Rapid Prototyping
SOFTWARE: C, Python, C++, Java, Git, Linux, LLVM, Django
PLATFORMS: Arduino/AVR, x86, ARM, 8051, MSP430, Raspberry Pi

LANGUAGES

ENGLISH: Fluent
HINDI: Fluent
BENGALI: Mother Tongue

PROJECTS

NOVEMBER 2016 **armsimc & armcpu** An ARM simulator in C, and a baby ARM CPU in Verilog.
APRIL 2016 **Mapbots** Mapped rooms using a ring of ultrasonic sensors mounted on a small robot. Map-generation implemented using the Hough Transform and Kalman Filters.
JULY 2015 **Algosaurus** Started a blog to address the need for quality, approachable resources on algorithms. Has received many compliments for its art.
(Went viral on [Reddit](#), has received over 80,000 unique visitors till date)

RELEVANT COURSEWORK

Digital Circuits	Data Structures and Algorithms	Introduction to Engineering Design
Embedded Logic Design	Discrete Mathematics	Linear Algebra

LEADERSHIP AND EXTRA-CURRICULARS

- **Club Coordinator** - Electroholics, IIIT-Delhi's Electronics Club. Responsible for managing teaching sessions, club projects, and the club hardware inventory worth Rs. 4,00,000.
- Was responsible for managing logistics and raising more than **Rs. 12,00,000** worth of sponsorships from a variety of companies for [HackIIITD '16](#), IIIT-Delhi's annual hackathon.