



Yagyaansh Khaneja

B.Tech. (Engineering Physics)

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Indian Institute of
Technology
Roorkee



Education

Year	Degree/Examination	Institution/Board	CGPA/ Percentage
2021	B.Tech. Engineering Physics	Indian Institute of Technology, Roorkee	7.113 (First Division)
2017	Intermediate (Class XII)	Rukmini Devi Public School (CBSE Board)	94.20 %
2015	Matriculate (Class X)	Rukmini Devi Public School (CBSE Board)	10.000

Experience

Head of Innovation | [Geeta Hardware \(Family Business\)](#)

Sept 2022 - Present

- Collating Sales data to potentially apply ML models in predicting sales & demand
- On-boarded accounts on cloud, increasing speed of operations; **2x the revenue to 1 million USD** (in less than a year).
- Building solutions for effective warehouse management
- Introduced **unique** classification system for hardware items, increasing ease-of-doing business.
- Currently building an [online store](#), to carefully catalog and standardize 1000+ products. (also selling on [Meesho](#))

Research & Site Intern | [Himalayan Institute of Alternatives, Ladakh \(SONAM WANGCHUK\)](#)

Jan 2022 - May 2022

- Drafted a construction training manual for [Passive Solar Heated Buildings](#).
- Monitored [weather data](#) using Campbell Scientific weather station installed at various locations in Ladakh.
- Helped in the installation of [LiFi system](#) (for high speed internet access to remote villages cheaply).
- Maintained the battery house of a 20kW solar PV system.
- Set up the panels, batteries and inverter for a new 7.5 kW solar PV system at HIAL Campus.
- Assisted in the design & installation of a new Stevenson Screen made on site.

Research Summer [Camp](#) (Photonics) | [ITMO University, St. Petersburg, Russia](#)

May 2019 - June 2019

- Worked on the project - THz generation from laser filamentation in the different liquids.
- Studied Quantum Information, Holography, Security of QKD systems, femtosecond lasers.
- Simulated interference and diffraction pattern for different waveforms and apertures.

Volunteering

Science/Maths/English Teacher | [Hanoi, Vietnam](#)

July 2022 - Aug 2022

- Volunteered in the sub-urbs of Hanoi, Vietnam as a teacher. ([Workaway](#))

Science/Maths/English Teacher | [SECMOL, Ladakh](#)

May 2022 - July 2022

- Volunteered in an [alternate school](#) for dropout students.
- Prepared dropouts to pass class 10th examination.
- Taught **Science** and **Maths** using fun and practical [experiments](#).
- Took hobby classes in **photography** and **astronomy** for interested students.

Projects

Personal Website | [Self](#)

Oct 2021 - Nov 2021

- Hard Coded my website [yagyaansh.com](#) using basic HTML, CSS and JavaScript.
- Hosted the static website on [GitHub](#).

B. Tech Project | [IIT Roorkee](#)

Aug 2020 - Sept 2021

- Design & Simulation of photonic switch based on GST embedded in SOI rib waveguides for operation at 1 THz. (CST MW Studio & [COMSOL](#)).

Lab based Project | [IIT Roorkee](#)

Dec 2018 - June 2020

- Designed a Non-volatile high static performance on-off photonic switch based on the nanoscale phase-change material GST embedded in SOI channel waveguide for operation at 2.1 μ m. (CST MW Studio).
- Studied **Phased Array antennas** & Array Waveguides for application in data communication.

Skills

Computer Languages	FORTRAN, Python, HTML5, CSS3, JavaScript, SQLite, LaTeX
Software Skills	MS Office, MATLAB, Lightroom, CST MW Studio, COMSOL
Languages Known	English (SRW - Native), Hindi (SRW - Native), French (SRW - Novice), Punjabi (S - Novice) S - Speaking, R - Reading, W - Writing
Certified Courses	Machine Learning by Andrew NG (Certificate), Web Design for Everybody: Specialization (Certificate), Internet: History, technology & Security (Certificate), Python for Everybody: Specialization (Certificate)

Achievements

- Centre Top 10% in part A of National Graduate Physics Examination (NGPE), 2019.
- AIR 2933 in JEE (Mains) 2017 Paper-1 (Engineering) [Top 0.2%]
- AIR 618 in JEE (Mains) 2017 Paper-2 (Architecture)
- AIR 3188 in JEE (Advanced) 2017 [Top 2.1%]
- Invited in National Science Camp (VIJYOSHI) 2016, by KVPY, the INSPIRE Program, DST and IISER Kolkata.
- AIR 300 in KVPY (Kishore Vaigyanik Protsahan Yojana) - 2015 in SA (class XI) General category.
- Awarded scholarship for excellence in NTSE (National Talent Search Examination) 2015. [Top 0.1%]
- Letter of Appreciation by Smriti Irani (HRD Minister, Govt. of India, 2015) for exceptional performance in CBSE Examination, 2015.
- Rank 7 in Science Open Merit Test (SOMT) - 2015 conducted by Delhi Science Teachers' Forum.
- AIR 578 Rank in National Level Science Talent Search Examination (NSTSE), 2015.
- AIR 190 in FIITJEE Talent Reward Exam (FTRE), 2014.
- Rank 10 in Junior Science Talent Search Examination (JSTSE) 2013-14 conducted by Science Branch of DoE, Govt. of NCT Delhi.

Extras

Additional Secretary Photography Section, IIT Roorkee	Dec 2018 - May 2021
Coordinator Thomso - Cultural Fest, IIT Roorkee	Oct 2019
Content Manager & Events Executive Member Srishti - Technical Exhibition, IIT Roorkee	Jan 2019 - Mar 2019
Volunteer National Social Service (NSS), IIT Roorkee	July 2017 - May 2018
National French Spell Bee Le Frehindi	Dec 2014
<ul style="list-style-type: none">• Cleared 1st level and participated in the 2nd round of the Advance level of the Concours d'Orthographe 2014.	
French Olympiad (National Level) French Embassy in India	Dec 2013
<ul style="list-style-type: none">• Awarded a medal by the Embassy of France in India for being one of the top 3 rankers in my school.	

Relevant Courses

Compulsory Coursework IIT Roorkee	B. Tech 2017 - 2021
<ul style="list-style-type: none">• Applied Optics (PHN-212)• Semiconductor Devices (PHN-312)• Engineering Analysis & Design (PHN-205)	
Electives IIT Roorkee	B. Tech 2017 - 2021
<ul style="list-style-type: none">• Optical Communication Systems (PHN-731)• Fiber and Non-Linear Optics (PHN-608)• Innovation, Entrepreneurship and Business Models (IBM-308)• Optoelectronics (PHN-427)• Photonic Sensors (PHN-735)• Semiconductor Microelectronic Technology (PHN-724)	