# Romir Kulshrestha

## student of everything

#### Romir Kulshrestha

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#### romir.eu

#### Skills

#### Technology /

- Robotics and embedded systems
- Computer vision and ML
- Full-stack web development
- BostonDynamics Spot (+ Core, LiDAR)
- Google Cloud

### Programming Languages and Platforms /

- Python
- C/C++
- Web (HTML/CSS/JS/TS/etc)
- ROS, ROS2
- x86 assembly
- Arduino/Teensy
- PyTorch, NCNN
- SQL, MongoDB
- Shell scripting
- Java (+ Spring, JavaFX)
- Git

#### Misc/

- Blender 3D, Unity (also learning Unreal Engine)
- Premiere Pro, After Effects

#### Education



**Delft University of Technology** / BSc Computer Science and

Engineering

2020-2024

Variant: Digital Systems Minor: Robotics



National Public School, Koramangala / Senior Secondary School 2018-2020

- Gave a workshop on machine learning and neural networks
- Co-organized NPSK Hack 2019, and other interschool fests
- Co-Founder, Competitive Coding Club
- Built software for student council elections, still in use

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### **Projects & Experience**

### YES!Delft ImpactLab / Robotics Engineer

SEPTEMBER 2021 - PRESENT, DELFT

Conceptualizes and develops real-world applications of robotics for real-world clients, such as NS and VolkerWessels among many others. Works extensively with the Spot robot by BostonDynamics.

#### **RoboHouse** / Minor Robotics - RoboBasket

SEPTEMBER 2022 - FEBRUARY 2023, DELFT

The BasketBuddy robot aims to automate the burden of relocating shopping baskets within retail stores in a human-friendly, non-interfering, and interpretable manner for the customers while improving working conditions for staff. Built for the TU Delft Robotics Minor 2022 by RoboBasket. Commissioned by AIRLab (Ahold Delhaize).

Architect of the software and control systems. Developed autonomous navigation systems, low-level hardware, communication systems, and user interfaces.

#### Voltlink / Co-Founder

SEPTEMBER 2022 - PRESENT, DELFT

A revolutionary new technology that changes the way people use electric skateboards, currently in development.

#### **CERN** / Research Trainee

JUNE 2018, GENEVA

Participated as a trainee in an on-campus program at CERN for high school students. Attended lectures on particle physics and cosmology by leading researchers and scientists at CERN such as Sir John Ellis, and Albert de Roeck. Received hands-on knowledge on various subjects such as how to build particle detectors and how the LHC operates.

### Cisco Systems / Talent Outreach

JULY 2018 - FEBRUARY 2019, BANGALORE

Participated in a 6-month long internship where school students collaborate with Cisco mentors to build a technology solution for a specific problem they want to address at their respective schools. Worked with a team of 6 students to develop a school event scheduling system called "event.horizon" using technologies such as NodeJS/Express, AngularJS, and MongoDB. Learnt techniques and software used in the industry, including Cisco WebEx. Presented the project to Cisco leaders at the end of the program.

#### **Duke University / Talent Identification Program**

MAY 2015, DELHI

A 3-week residential program where the top 5% of students in a nationwide talent search program are enrolled in courses that are offered at a university level. Enrolled in the "Physics of Propulsion" course.

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### **Recognition & Awards**

## Teenage Prodigy in Computer Science / IIT Kharagpur

**APRIL 2018** 

I was ranked amongst the top 3 participants nationally and adjudged a 'Teenage Prodigy' in computer science. Received a certificate and a cash award.

### Regional Finalist, TCS IT Wiz / Tata Consultancy Services

AUGUST 2019, BANGALORE

I was a finalist (top 6) in the Bangalore edition of TCS IT Wiz, the biggest inter-school IT Quiz in India.

#### Certificate of Merit, National Mathematics Talent Contest /

Association of Mathematics Teachers of India

SEPTEMBER 2017

I secured a position in the top 10% consistently at each stage and was therefore awarded a Certificate of Merit.

# **Zonal Computing Olympiad (selected for nationals)** / Indian Computing Olympiad

JANUARY 2020

Qualified for the Indian National Olympiad in Informatics 2020, to be held in January 2020.

# Class Excellence, Australian National Chemistry Quiz / Royal Australian Chemical Institute

SFPTFMBFR 2017

Had a near-perfect score of 29/30 for which I received a Certificate of Excellence and a plaque.

## Runner Up, Pravega / Indian Institute of Science, Bangalore JANUARY 2019

The largest science fest in India organized by the Indian Institute of Science, Bangalore, one of the top science and engineering institutes in the world

# **Special Mention, Codewars 2019 / Hewlett Packard Enterprise**JULY 2019

Placed 4th out of 100 teams in HP Codewars, a first-class computer programming competition for high school students, held in 7 cities across the world. Was the leader of the school team.

### National Finalist, Space Settlement Design Contest /

International Space Society

OCTOBER 2015

Youngest of the national finalists in the Space Settlement Design Competition organized by the International Space Society in India and received a special mention by the Chairman, International Space Society

## Regional Winner/National Finalist, National Science Fair / CBSE NOVEMBER 2014

Recognized and awarded in the CBSE National Science Fair for designing a low-cost, geothermally cooled granary for storage of food grains, a solution that would save over 6 billion dollars worth of food grains from being wasted for lack of availability of proper cold storage

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## **Hobbies & Interests**

## Piano

An avid pianist, loves to make covers of movie soundtracks and occasionally composes.

## Comedy

Can compile jokes faster than gcc

## Photography/Film