# Raahul Singh

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## **EDUCATION**

#### **IIIT SRI CITY**

BTECH IN COMPUTER SCIENCE AND ENGINEERING Cum. GPA: 8.43 / 10 August 2018 - 2022 | India

#### ST. JUDE'S SCHOOL

Grad. May 2017 | Dehradun, India

## LINKS

Website: raahulsingh.net Github: Raahul-Singh GitLab: rasalghul2 LinkedIn: raahulsingh42 Substack: pathfinder Medium: @raahulsingh42

## COURSEWORK

### **UNDERGRADUATE**

- Deep Learning
- Artificial Intelligence
- Machine Learning
- Object Oriented Programming
- Information Retrieval
- Service Oriented Application Development

# **SKILLS**

## **PROGRAMMING**

Python

Frameworks

Pytorch • Numpy

Pandas • PyGame

SunPy • Tools:

Git • Bash

Familiar

SQL • Java

#### **PUBLIC SPEAKING**

English Debate

• First Prize among speakers from 33

International English Debate QUANTA (2016)

City Montessori School, Lucknow, India

• Over 7 years of Inter School and District English Debating experience.

# RESEARCH AND ENGINEERING EXPERIENCE

#### **PHAIDRA**

SENIOR AI RESEARCH ENGINEER

August 2020 - Present

- Worked on incorporating causal inference techniques to reduce biases in learned models.
- Worked on data agnostic techniques for enforcing known first principle domain knowledge learning in deep neural nets.
- Worked on ML Observability and Domain Specific Model Performance monitoring.
- Implemented solutions for dealing with Large Action Spaces in decision problems.
- Worked within Research and Engineering teams, designing and developing tools to bring cutting edge in house research to production.
- Achieved 15x accuracy in time series prediction tasks using 30x less data, for 2x and 3x variable prediction horizons

# GOOGLE SUMMER OF CODE '20 @ SUNPY (OPENASTRONOMY)

STUDENT DEVELOPER

May 2020 - July 2020

- Developed models for forecasting the likelihood that an Active Region on the sun would produce a solar flare in the near future.
- A Search Events object capable of querying and matching data from HFC, HEK and HELIO databases was created.
- Link to an overview of deliverables.

#### INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE

Machine Learning Intern @ The Biotech Department May 2019 - July 2019

- Under the guidance of **Dr. Debabrata Sircar**, implemented standard machine learning algorithms to train on biochemical sensor data to predict shelf-life of edible fruits.
- Worked on data analysis of volatile chemicals of fruits, to understand the biological parameters that affect post-harvest storage and nutritional qualities of fruits.

## **PATENTS**

#### **DETERMINISTIC INDUSTRIAL PROCESS CONTROL**

US20250021061A1 (JAN 2025)

• Co-inventor on published patent application (assigned to Phaidra Inc.) for novel control systems: Systems and methods for deterministic thermal constraint control.