

# Ayush Rautwar

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## Programming

- Fluent in Java and Python
- Familiar with Golang, Rust, and C
- Comfortable using and navigating Linux, Windows, and MacOS
- Experienced with software project management (<https://github.com/ayusher>)

## Leadership and Communication

- Communicate feelings by means of facial expressions, gestures and bodily movements
- Experienced with debate, enabling me to portray important information quickly and effectively
- Experienced with project management

## Experience

- ***TJREVERB Project Leader***, a NASA sponsored satellite mission (<https://activities.tjhsst.edu/cubesat/>)
  - ADCS: Developing simulations that will predict TJ REVERB's orbit and attitude; Working with direction cosine matrices, quaternions, and satellite space dynamic applications
  - Electronics: Developing understanding of circuits and signals
  - Processors: Working with micro-computers such as Raspberry Pi and Arduino
  - Programming: Writing robust flight software that implements effective class structure, thread handling, and dependency management
- ***Flight Dynamics team lead for Project Caelus***, a non-profit rocket research organization (<https://projectcaelus.org/>); this position requires strong technical rocket dynamics and design understanding
- ***Treasurer and Battle of The Rockets team lead for TJ Rocketry***, an amateur rocketry club at TJHSST
- ***Cultivate The World co-founder***, a non-profit to-be (still finalizing paperwork) that builds small weather stations in third world countries and analyzes data on an ML server

## Education

**High School:** Thomas Jefferson High School for Science and Technology (11<sup>th</sup> grade)

**Current AP and Post-AP Classes:** Advanced Multivariable Calculus, AP Physics, Artificial Intelligence, AP US History