

Hello! from AgniKul.

Who are we?

AgniKul Cosmos Private Limited focuses on design, development and testing of all aspects of rocket launch vehicle technology. We are working on creating a small orbital class launch vehicle that will be designed in India.

("AgniKul" is inspired by the sanskrit word "Gurukul". Translates to: "a place where we learn to use fire")

The company was founded with the sole idea of making space access affordable for everyone. Getting to space shouldn't be the hardest part about being space-faring. We would like to do our part in bringing space access to the common man. We strongly believe that making space access extremely cheap will open up currently unexplored paths in fields that are not even remotely linked to space today.

Advisors: We are both, very proud and thoroughly humbled to have an extremely accomplished set of advisors spread across senior scientists from ISRO, IIT-Madras, the Indian Govt. and even our customer base (i.e.. Cubesat developers) helping us accomplish this mission.

What do we offer?

We are not here to just give grunt work to interns and employees. Computer programs do that really well. Our employees will be either directly helping us shape the design of the rocket, or work with us on carving out the business strategy, or build an operations framework for an international supply/chain problem in rocket manufacturing.

Eligibility

We strongly prefer working with interns and employees who are passionate about space and willing to work with us for long term

Job Title : Astrodynamics Researcher (Mathematics)

If you like thinking about triangles whose internal angles don't add up to 180 degree - this job is for you.

If you think parallel lines intersect well before infinity - this job is for you.

If you think Euclid is overrated - this job is for you.

Responsibilities:

- Leads/Co-leads the mathematical and physical design problem of trajectory design for a continuously accelerating rocket
- Implements approaches for numerical methods used in fast computation problems
- Guides application of Non-Euclidean geometry in astrodynamics and its use in coordinate transformations.

- Designs mathematical models (along with the control systems engineers) for the control, navigation and guidance systems of the rocket
- Documentation of analysis and test results with a focus on automation and efficiency of reporting
- Testing math and physics assumptions behind simple flight software

Basic Qualifications:

- Bachelor's degree in Physics or Mathematics
- Understanding of Celestial body mechanics, classical dynamics
- A basic understanding of spherical trigonometry

Preferred Skills and Experience:

- Masters degree in Physics or Mathematics
- Passion for physics and mathematics
- Passion for advancing the commercial space industry and human spaceflight
- Excellent communication skills both written and verbal

Additional Requirements:

- Must be available to work extended hours and weekends as needed.

What you could take away?

- Your work will directly impact the company's (and the rocket's) trajectory
- You will learn rocket science from some of the most senior and respected minds in ISRO
- You will work on shaping space policy in India
- You will dirty your hands in a global supply/chain optimization problem

Location

- Chennai, India
- Remote working can be considered on a case-by-case basis

Employment Type

- Internship
- Part Time
- Full Time
- PhD Programs support

In conclusion

A rocket, like anything else, is just the outcome of the right group of individuals coming together and working towards a common vision. We deeply value people we work with and are looking to collaborate with some of the best minds in the country to bring space closer to earth.

Pls. send us a three line email about yourself and a resume to : humancapital@agnikul.in if you are interested.