# AlGuruKul

Empowering minds to learn, develop and grow together.

An initiative by Scientists & Engineers

**Key motivation driver** 

Enabling our demographic dividend -> A long term investment for a viksit Bharat in 2047!



Empowering minds to learn, develop and grow together.

## What is Vision of AlGuruKul Foundation?

To build a collaborative, personalised and experiential learning ecosystem for emerging AI technologies.

### Who are our intended Benefactors?

#### **Primary**

UG/PG students aiming to master full-stack GenAl and pursue research.

#### **Secondary**

GenAl community (via open-source), public (via applications), and researchers (via publications).



Access to A100, H100 GPUs



Access to Cloud computing services like GCP, AWS



Access to experienced mentors from Academia and Industry



Access to talks by experienced Scientists and Industry Leaders



Access to industry-based internships on completion of curriculum



Hands on Guidance to publish research papers

#### **OUR ACHIEVEMENTS**



8 Paid Internships
3 US tech startups, 3 ISB,
1 Indian Tech startup,
1 US University



10+ Research Papers
Accepted at top AI conferences
40+ citations



Open Source Group 4 mentors,

4 mentors, 15 active students



**Fastest Career Launch** 

Paid internship in just 2 months

# What problem and how are we solving?

- Problem 1: Enabling the demographic dividend: Improving accessibility to cutting edge GenAl technologies
  - Continuous learning framework to adapt to latest GenAl technologies for real life applications.
- Problem 2: Enabling Forward hiring: Closing Industry Academia skill gap for tier 2 and tier 3 colleges.
  - Experiential learning base projects and involved mentoring
  - Mapping up-skilled/trained cohorts to internships @ Academic institutions, startups, companies
- Problem 3: Augmenting and enhancing learning/teaching experience:
   Al for Education
  - Scalable tool building with a select closely mentored cohort from tier 1, 2 and 3 colleges.

## I. AI 4 Education and Social Good

Lack of exposure and monetary resources to obtain high quality education at different levels!

- 1. At mid, high and senior school level **Learning of first principles**
- 1. Personalised coaching for competitive examinations such as NEET/JEE/UPSC/CAT which are often only cleared by a good proportion of the urban youth and not those from Tier 2 and 3 cities.
- 1. In Tier 2 and Tier 3 cities, college students lack resources to learn cutting edge/ industry relevant software skills: Al coaches for programming languages!

We are in the process of making personalised education equitable with VidyaRANG!

1. Make learning personalised 2. Augment teaching – learning experience 3. Vernacular Q&A!

# Why we think it is at all possible and necessary?

## Possible because:

- LLMS and GenAl models are only going to get better, smarter, and cheaper per token
- Compute only going to get better, greener and cheaper

## Necessary because:

- Resource frugal implementations = Greener GenAl -> Sustainable adoption and improved accessibility
- Harnessing of demographic dividend -> A long term investment for a viksit Bharat in 2047

# Why and how much do we need money?

- Resource cost: 5000-8000 per-student per-month.
- This includes:
  - Subscriptions to various GenAl tool APIs
  - AWS EC2 server and Storage costs
  - Website hosting
- · This excludes:
  - Development costs
  - Stipends
  - Project management effort.

## II. Knowledge Transfer in industry

Knowledge forms
Explicit – Quantifiable
Tacit / Implicit – Out of experience and very subjective



https://www.iteratorshq.com/blog/cost-of-organizational-knowledge-loss-and-countermeasures/

## III. Knowledge loss -> Time lost -> Money lost





- 1. Employee Turnover.
- 2. Outdated Knowledge.
- Physical Loss.
- 4. Uncaptured Knowledge.

How do we solve this problem?

- 1. Extending VidyaRANG as a KT Assistant
  - 2. Implement resource frugal implementation of opensource models for data privacy
    - 3. Vernacular modes of learning

## Road ahead

Where do we go next?

How do we make this reach masses and make an impact?

How do we scale?

# What is in it for you? (Educational Institute)

- The burden of training fresh candidates on GenAl will be outsourced to us.
- As part of MOU, you get trained candidates capable of full stack ML/GenAl.

## More Details here...

AlGurukul Team: <a href="https://www.aigurukul.dev/team">https://www.aigurukul.dev/team</a>

AlGurukul Projects: <a href="https://www.aigurukul.dev/projects">https://www.aigurukul.dev/projects</a>

AlGurukul Research Papers:

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