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ACG NEWSLETTER

Together we'll reach greater heights!

Official Newsletter of AllCareerGuru.org

What's Inside

Welcome to another edition of All Career Guru (ACG) Newsletter. As we are nearing the end of 2025, we are proud of the number of candidates whom we have guided on their career and the number of events we have conducted. In this newsletter, we continue our focus, as with the goal of ACG, on equipping you with 21st-century skills.

More specifically, in one of our regular columns, we interview Mythili, who chose Electronics and Hardware over software and is cruising in her career at Bosch, one of the top firms in embedded systems. We have an article on AI

tools, by Krishna Gopinathan, a long term entrepreneur who has founded multiple analytics and AI driven companies in the US and in India. And we have a transcription of the speech by Prof Balaji Rajagopalan to high school students on how to navigate in the 21st century amid all the developments in AI.

In the last few months, ACG has expanded its activities to have regular webinars on 21st century skills, particularly on Computational Thinking and Python by Raja. N, a continuing series on Basic Electronics by Prof Ananthanarayanan and a continuing series on using AI tools to amplify your career search, by Prof Krishnan Nallaperumal. To receive further announcements on these, please join our WhatsApp group by using the following link: https://shorturl.at/7PRHp

AI and Your Future Career - What Every Student Should Know Before Choosing a College Major - by Krishna Gopinathan

If you're in Classes 11–12 or the first years of college, you're making some of the most important decisions of your life: what to study, which career paths to consider, and how to prepare for a world that is changing faster than ever.
And right in the middle of this change is AI.

Most students think AI only matters if you choose Computer Science.
But here's the real truth:

AI is transforming every career, every field, and every job – not just tech.

Whether you want to become a doctor, lawyer, designer, researcher, engineer, accountant, writer, or entrepreneur, AI will shape your daily work.
Understanding how it's transforming careers today can help you make much smarter choices about your major tomorrow.

Let's break it down.

I. How AI Is Changing Every Career Path

Medicine

AI is speeding up diagnosis, helping radiologists read scans, predicting patient risks, and even assisting in drug discovery.
Doctors who understand how to work with AI tools, rather than fear them, will be able to provide faster, more accurate care.

Law

Lawyers now use AI to research cases, review complex documents, summarize judgments, and analyze contracts.
The legal field needs professionals who combine strong legal reasoning with the ability to use AI responsibly and ethically.

Engineering

Whether you choose mechanical, civil, electrical, or chemical engineering, AI is everywhere:

- Smart design software
- Predictive maintenance
- Automated simulations

- Data-driven construction and manufacturing

Engineering + AI is becoming the new standard.

Finance

From credit scoring and fraud detection to algorithmic trading and personalized financial advice, AI is revolutionizing how financial institutions operate. Students who combine finance knowledge with AI literacy will be extremely competitive.

Creative Industries

Designers, writers, filmmakers, and musicians now use AI tools for:

- Illustrations
- Video editing
- Storyboarding
- Music generation
- Content creation

Your creativity becomes even more powerful when you know how to work with AI.

II. "AI-Resistant" Skills: What Really Matters Now

AI will automate routine work across all fields. But the good news is that the most valuable skills are becoming more, not less, human:

- Critical thinking & problem solving
- Creativity and original ideas
- Communication, writing, and storytelling
- Ethical judgment
- Leadership and teamwork

Students who pair domain knowledge with strong human skills will lead the careers of the future.

III. AI Skills Every Student Should Build Now

Whether you study Arts, Commerce, or Science, you don't need to become an AI engineer—but you do need to become AI-literate. AI skills are now as essential as email, spreadsheets, or internet research.

Here are the most important ones:

1. Prompting as a Core Skill

Knowing how to ask clear, specific questions dramatically improves the quality of AI responses.
Prompting is quickly becoming a workplace literacy, much like knowing how to search effectively on Google.

2. Verification & Fact-Checking

AI can be confident and wrong.
Students must learn to:

- Cross-check AI answers
- Verify facts using textbooks or credible websites
- Compare multiple AI tools when needed

Good judgment is your best defense.

3. Summarizing and Synthesizing Information

AI can compress long chapters, PDFs, or research papers into digestible notes.
Used well, this helps you learn smarter, not lazier.

4. Personalized Learning Assistant

AI can:

- Explain tough topics in simple terms
- Generate quizzes
- Create diagrams and examples
- Give alternative explanations if you're stuck

It's like having a personal tutor available 24/7.

5. AI-Augmented Writing and Editing

AI can help you:

- Draft essays
- Improve clarity
- Edit tone
- Fix grammar
- Rewrite confusing paragraphs

But your ideas should remain your own.

6. Tool-Chaining: A 2026 Superpower

Students who combine multiple tools (e.g. ChatGPT + Canva + Gamma + Perplexity) can efficiently create:

- Presentation slides
- Portfolios
- Project reports
- Research summaries
- Visual designs

This is becoming a powerful academic and career advantage.

7. Beginner-Friendly Coding

Even students not pursuing CS can learn basic Python, HTML, or SQL with AI as a coach.
This opens up new opportunities across fields.

IV. High-Impact Uses of AI Students Can Start Today

Here are simple, practical ways AI can make your life easier:

- Build or update your resume
- Explore career paths and understand what jobs look like
- Practice with mock interviews
- Summarize textbooks and research papers
- Create design or writing portfolios
- Plan your study schedule
- Improve time management
- Brainstorm project topics or research ideas
- Learn languages and improve communication
- Interpret graphs, charts, and data easily

These aren't theoretical; students across India and the world are already using AI for exactly these tasks.

V. Choosing a College Major in an AI World

AI changes how you should evaluate your choices.
When comparing majors or colleges, look for:

1. Curriculum that includes modern skills

Not just coding – data literacy, computational thinking, statistics, design tools, and domain-specific tech.

2. Strong project opportunities

Labs, internships, hackathons, industry collaborations, and research chances.

3. Interdisciplinary exposure

The future belongs to combinations:

- Biology + AI
- Economics + AI
- Psychology + AI
- Design + AI
- Commerce + Data Science

Choose a major that lets you explore across domains.

4. A learning environment that encourages curiosity

Students thrive when colleges encourage experimentation, questioning, and creativity.

VI. Final Message: The Students Who Thrive Will Be the Ones Who Learn to Work With AI

AI is not here to replace you.
It's here to amplify you.

The students who will succeed over the next decade are those who:

- Embrace AI,
- Understand its strengths,
- Recognize its weaknesses,
- And combine it with human creativity, curiosity, and judgement.

Whatever major you choose, AI is now part of your future.
The sooner you start building AI skills, the more doors you open—for your education, your career, and the impact you can create in the world.

Learning, Unlearning, and Relearning: How to thrive in an age of A.I

A transcription of the speech by Prof Balaji Rajagopalan to high school students on how to navigate in the 21st century.

We live in what Tom Friedman describes as a "Flat World" — one that is both exciting and challenging. Exciting because of the explosion of knowledge and technology; challenging because of the rapid pace of change and the constant obsolescence of knowledge. Yet this is also a time of extraordinary opportunities — a chance to harness knowledge and innovation for the greater good of humanity and the planet, on a scale never seen before.

To thrive and to be a force for good in this "Flat World," you will need three things:

1. To be a sponge for knowledge.
2. To think broadly and see connections across diverse fields — to embrace interdisciplinarity.
3. To develop strong communication and writing skills.

In short, you must learn to be both an expert and a generalist at the same time. To succeed, cultivate intellectual curiosity, and commit yourself to lifelong learning.
Encapsulated in this thought-provoking quote by Alvin Toffler - *"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."*

Your time in school and college is the best place to lay the foundation for these skills. Continue to build on them!

Who do we look up to, to get inspired and learn from, to thrive in this Flat World ?. Fortunately, history offers us two towering figures to learn from and emulate: the Wright brothers and Leonardo da Vinci — brought to life in the engrossing works of David McCullough and Walter Isaacson.

I will briefly highlight the Wright Brothers.

As historian David McCullough describes, the Wright brothers possessed extraordinary intellectual curiosity, a love for the liberal arts, and a gift for language. They combined keen observation of nature with practical skills as mechanics, machinists, and businessmen. They were exceptionally hardworking, collaborative, and logical. Perhaps most importantly, they learned from failure, persisted through setbacks, and approached complex problems with methodical reasoning.

Their story also reminds us that words matter. Ideas endure because they are written down. The next time you step onto a Boeing 777, Dreamliner, an Airbus A-380, or any other airplane, remember that you are flying because of the Wright brothers' detailed writing and careful documentation of their designs and experiments — the very records that made modern aviation possible. Not to mention, the ability to fly like birds and the flying machine is a singular invention and discovery in human civilization that has changed history in a profound manner within a short span, arguably more than any other invention in history. All of this from two high school graduates!.

I like to tell that if the Gods get envious of humans it will be over our ability to fly and our flying machines!. Thanks to the Wright brothers.

Behind their success stood a great teacher: their father, who drilled in them the need for excellent writing and communication skills, nurtured their curiosity and discipline.

I will emphasize that excellent communication and writing skills are especially important to thrive in STEM fields (Medicine, Engineering, Science.), contrary to intuition. So, Read!, Read anything! in front of you (newspapers, books, articles, pamplets, anything), Read daily!. For, good reading leads to clarity in thought, which leads to clarity in writing and communicating, all leading to clarity in action!. The Wright Brothers approach.

As an aside, browsing online is ***not*** Reading!

Money, technology, and physical structures do not inspire generations or shape destinies on their own. It is great teachers who awaken curiosity, cultivate a

love of learning, and develop the habits of logic and reason. I can attest to the life-changing power of education and the teachers and mentors who guide us.

As someone who is a first-generation college graduate, I spent much of my childhood in rural south-central India without even running water. My own very modest school no longer exists physically — it lies in ruins, demolished by changing economic times. But the lessons I carry with me endure. The extraordinary teachers of math, science, and literature who shaped my mind are the reasons for my success.

Human history, across ancient and modern societies alike, is filled with examples of the transformative role of great teachers. As the English writer Michael Morpurgo beautifully said: *"It is the teacher that makes the difference, not the classroom."* So take advantage of and seek out teachers and mentors around you while you are in your school and college, to build the skills necessary to thrive in the future of A.I.

In parting, let me leave you with this thought from one of history's greatest creative minds, Leonardo da Vinci, once said: *"Learning never exhausts the mind."*

My advice is simple: Keep learning. Keep Reading. Stay curious.

Interview with Mythili - Importance of learning electronics

Meet Ms. Mythili Arunachalam, who makes a push for upskilling in basic electronics and developing hands-on skills in it during your college days, apart from learning programming!

ACG: Tell us about yourself

Mythili: I did my schooling in Coimbatore and then joined Government College of Technology (GCT), Coimbatore for a BTech in ECE, and got placed in the firm Bosch from campus placement, and I have been here for the past 8 years. I joined as a software developer, and I am currently a senior software engineer and I hope to become an architect soon!

ACG: Why did you choose ECE?

Mythili: Though I liked programming, I was much more interested in hardware and electronics. I got my inspiration from my father, who was also well-versed in electrical tinkering!

ACG: Were you able to sustain the interest during college?

Mythili: Yes, I liked math, control systems and devices, but was less interested in communications. I enjoyed the courses that involved electronics.

ACG: How did you get placed on campus placement? What helped?

Mythili: I used to visit Prof. Ananthanarayanan at Amrita University, and got exposed to various devices and experiments in his lab. He also used to conduct mock interviews. These helped me gain enormous confidence. The actual selection was based on an aptitude test and interview questions that tested my basic knowledge of electronics and software development cycles.

ACG: Bosch is one of the top companies in embedded systems. Are you happy with your job and career progression?

Mythili: Yes, I am quite happy. As I am in a product company, I feel that I have a lot of opportunities for innovation and creativity.

ACG: Tell us about your current job. What do you do?

Mythili: We work on the software development for the ECUs (engine control unit) for passenger cars and trucks. We do model-based development for code generation and verify it via unit tests and system qualification tests.

ACG: What are other companies doing similar things?

Mythili: There are many car companies including Tata, and Mahindra, though not all have presence in Coimbatore, where I wanted to live.

ACG: What are other options for an ECE graduate like you? Where are your peers?

Mythili: Semiconductor manufacturers are hiring big time. Some of my peers are also doing VLSI programming.

ACG: What is your final message to budding students?

Mythili: In these times of big changes, it is important to keep updating with the latest. Your life is in your hands. While you have to get hands-on skills outside your courses, do also your courses in the curriculum sincerely. While one may be able to develop programming skills over a period of time, it is important to pick up the basics of electronics in college. All the best!

UPCOMING EXAMS AND DEADLINES

APPLICATIONS OPEN (DEC 2025 – JAN 2026)

CMAT 2026

Organization: National Testing Agency (NTA)
Description: National-level entrance test for admission to AICTE-approved management programs
Application Opening: November 2025
Last Date for Application: December 25, 2025
Exam Date: January 24, 2026
Eligibility: Bachelor's degree in any discipline
Age Limit: No upper age limit
Website: exams.nta.ac.in/CMAT

NIFT 2026

Organization: National Institute of Fashion Technology
Description: National entrance test for B.Des, B.FTech, M.Des, M.FTech, and MFM programs
Application Opening: November 2025
Last Date for Application: Early January 2026 (TBA)
Exam Date: February 2026 (Admit cards in Jan 2026)
Eligibility: B.Des/B.FTech: Class 12th pass; Master's: Bachelor's degree
Age Limit: B.Des/B.FTech: Max 24 years; Master's: No limit
Website: nift.ac.in

Upcoming Exam/Result Dates (Registration Closed):

CSIR UGC NET Dec 2025

Organization: Council of Scientific & Industrial Research (CSIR)
Description: JRF & Lectureship eligibility test
Exam Date: December 15 – 17, 2025

NMAT by GMAC

Organization: Graduate Management Admission Council (GMAC)
Description: MBA entrance test for NMIMS & other B-schools
Exam Date: October 10 – December 19, 2025

SBI PO Prelims 2025

Organization: State Bank of India
Description: Preliminary exam for Probationary Officers
Exam Date: December 20 – 21, 2025

Key Events and Results:

CLAT 2026 Result

Organization: Consortium of NLUs
Description: UG/PG law entrance test result
Result Date: Late December 2025 (TBA)
Website: consortiumofnlus.ac.in

AILET 2026 Result

Organization: NLU Delhi
Description: UG/PG law entrance test result
Result Date: Late December 2025 (TBA)
Website: nludelhi.ac.in

Old Puzzle Solution

Find the possible solutions for "The Science Fair Mystery" puzzle below:

Four friends—Adya, Banu, Cynthia, and Meiappan—each entered a different project (robotics, chemistry, astronomy, and environmental science) into the school science fair. Each project won a different prize: first, second, third, or fourth place. Use the clues below to determine who did which project and what place each received. List all the solutions and argue that they are the only ones.

Clues:

1. Adya's project placed higher than Banu's, but lower than the astronomy project.
2. Cynthia did not do the chemistry or environmental science project.
3. The robotics project did not win first or fourth place.
4. Meiappan's project placed immediately above Cynthia's.

Solution:

Let's see who occupies the first position. From the first clue, it is clear that Adya can not be first (as her project is lower than Astronomy project), and it can not be Banu, as Banu is ranked lower than Adya. And from the fourth clue, it can not be Cynthia, and so it must be Meiappan. Fourth and first clues then give the entire ranking as below.

1. Meiappan — 1st place
2. Cynthia — 2nd place
3. Adya — 3rd place
4. Banu — 4th place

In terms of the projects done by each of them, as Adya is placed third, from the first clue, the astronomy project must be done by Meiappan or Cynthia. From the third clue, Cynthia or Adya did the Robotics project. From the second clue, Cynthia did the Robotics or ES project.

Consistent with these observations, we have the following solutions.

- Meiappan – Astronomy
- Cynthia – Robotics
- Adya – Chemistry/ES

- Banu – Environmental Science/Chemistry

Or

- Cynthia – Astronomy
- Adya – Robotics
- Meiappan – Chemistry or ES
- Banu – ES or Chemistry

Puzzle Corner

There are 10 big buckets (each capable of holding up to 10 litres of water). Each day, I pour 1 litre of water (overall) in the buckets in an arbitrary way (i.e. I can pour the entire 1l water in a chosen bucket, or distribute it equally or in any other way), and you pick any one bucket and empty it. This goes on for 9 days. On the 10th day, after I pour the 1litre water in a similar arbitrary way and then I pick one bucket of water for my consumption. If I want to maximize the capacity of the bucket I get to choose on the 10th day, what should be my strategy each day to distribute the water and what is the maximum capacity I can get?

For example, if I pour my 1litre in any ONE empty bucket each day, then you might empty that each day. So I am just guaranteed the 1litre of the water I pour in a bucket on the last day.

Alternatively, if I distribute the water equally every day, then since you can empty only 9 buckets, at least one bucket will have 1/10 litre from each of the days (this ratio is slightly less on the second day, third day so on), and so on overall I can get roughly 1 + 9/10 litres, i.e. slightly less than 2 Litres.

Is there a strategy by which you can guarantee more than 2 litres in a bucket on the final day?

Rush your answers to newsletter@allcareerguru.org - The best answer sent by January 15th will be eligible for a prize worth Rs.1000.

Send your comments and suggestions to:
newsletter@allcareerguru.org

Visit us at: allcareerguru.org

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