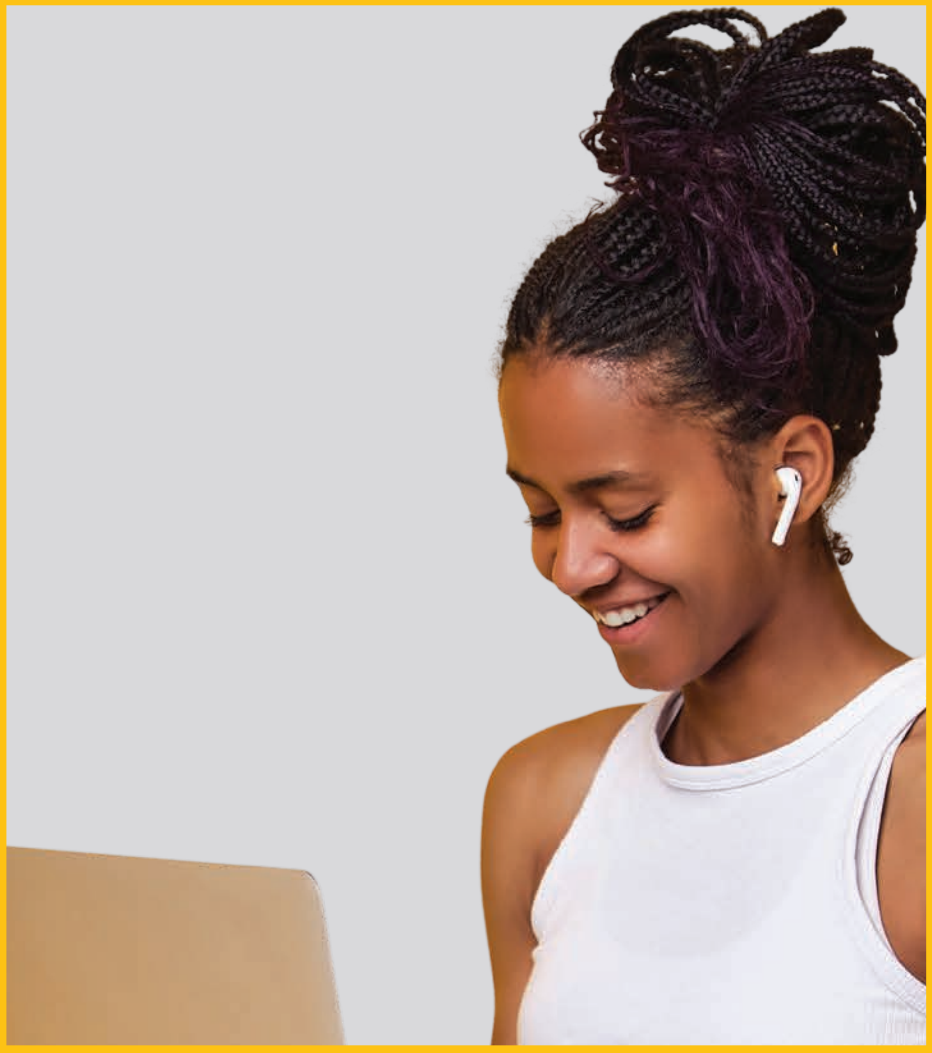
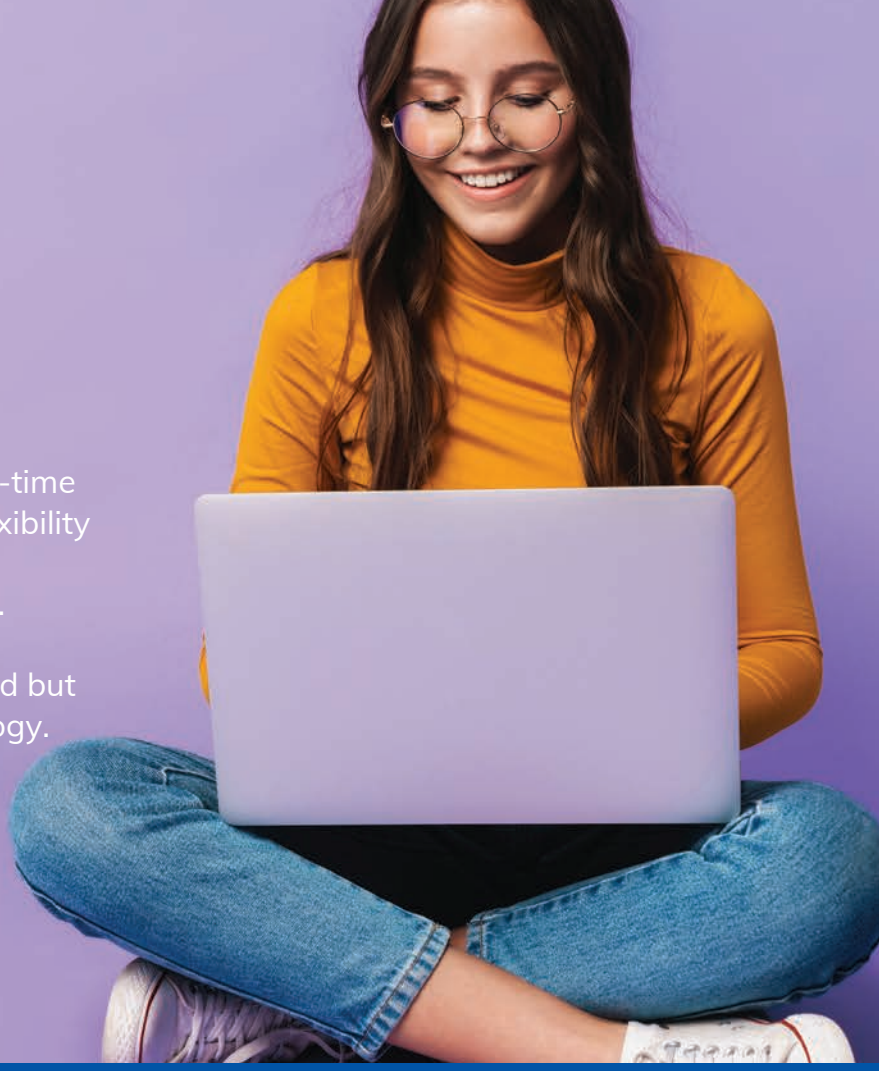
CORPORATE GURUKUL | AI Internship for Young Achievers



Grades 8 - 12

NUS National University of Singapore

Hewlett Packard Enterprise



AI is a 21st Century Skill Set

Industry 4.0 is the realization of the digital transformation across fields, delivering real-time decision making, enhanced productivity, flexibility and agility. AI is a fundamental skill almost everyone should master in the 21st century.

It's crucial that students not only understand but actively engage with the emerging technology.

Indian board, CBSE, has introduced Artificial Intelligence as a subject in schools starting Grade 8 in order to enhance the multidisciplinary approach in teaching-learning and to sensitize the new generation.

National Education Policy of India (NEP 2020), also recommends the need to inculcate new-age technologies such as AI and data analytics, which are built on the premise of logical thinking, critical thinking and problem-solving skills.

Students from IB and Cambridge boards are already doing projects on AI. The next step is to apply AI to real-world problems across streams - arts, science, medicine and healthcare, sports, design, etc.

Developed countries are also looking at developing AI talent at the school level. Initiatives like AI4ALL in the US and AI Singapore (AISG) in Singapore encourage high school students to grow the local talent, build an AI ecosystem right from schools.

CORPORATE GURUKUL'S AI INTERNSHIP FOR YOUNG ACHIEVERS IS ALIGNED WITH THE NEEDS OF A CHANGING WORLD AND NEW-AGE LEARNERS.

WHAT IS AIYA?

The AI Internship for Young Achievers (AIYA) combines LIVE learning and LIVE internship. It is a 12-week long programme designed for high school students in grades 8 through 12.

You understand the logic and math behind different models that enable chatbots, self-driving cars, image recognition and much more. Through projects and hands-on sessions you will put your new skills to practice.

It is an open academic internship with participants from multiple countries across Asia.

NO PRIOR CODING/COMPUTING BACKGROUND NEEDED!

THE AIYA BENEFIT

AI Experts not Scholars

Your learning team comprises of faculty from #11 university and industry AI frontiers. They have at least 5+ years of experience in AI teaching and research.

Get Certified

Don't just learn and apply AI concepts. Get certified for your work. You can even earn a Letter of Recommendation (LoR) if you bag the best project title!

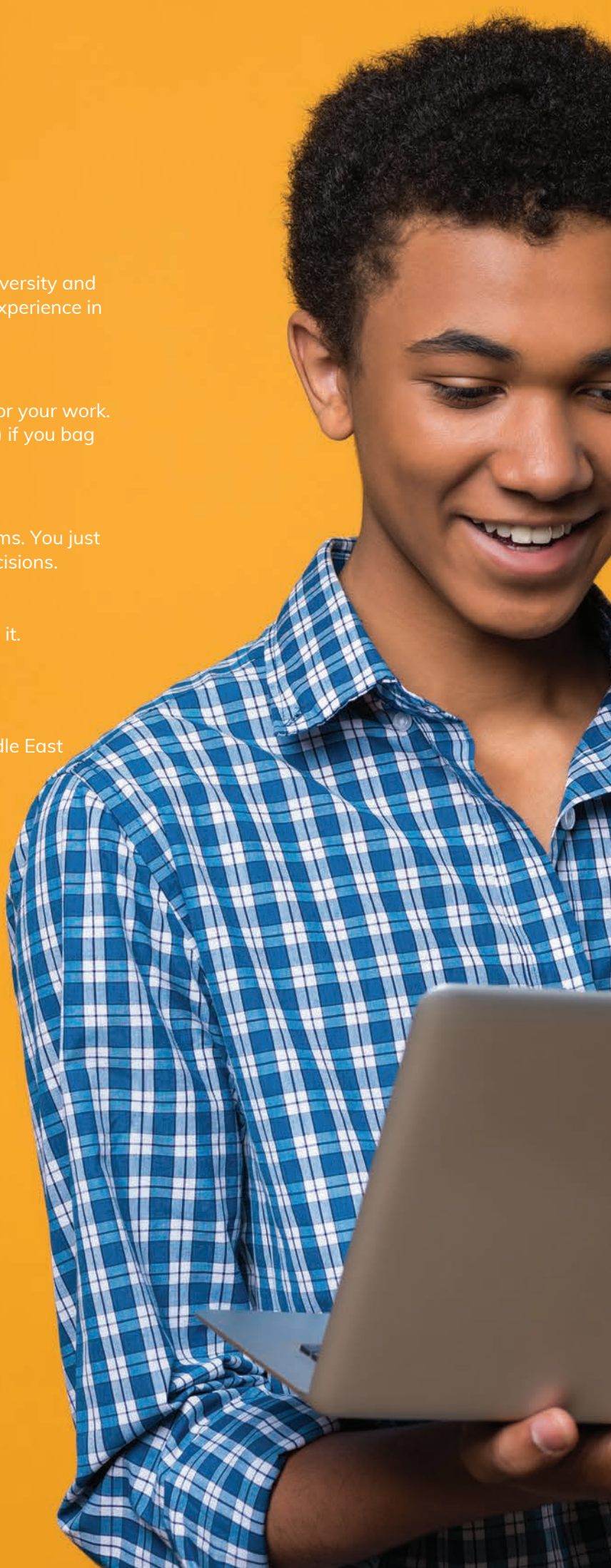
Logic before Code

All programming codes work on logic. So do AI systems. You just teach AI systems how to think logically and make decisions. However, the logic can get a little complex.

Discover the logic layer by layer and the math behind it.

Global Diversity

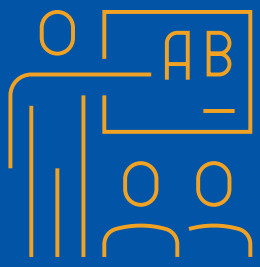
AIYA is a popular choice for students from India, Middle East and Southeast Asia. You will have the opportunity to collaborate and participate with a global audience.



CURRICULUM

Learn the tools to create an impact on the world.

01



Classroom Sessions

a. Introduction to Data Science

b. Master Python in 5 mins

c. Machine Learning (ML)

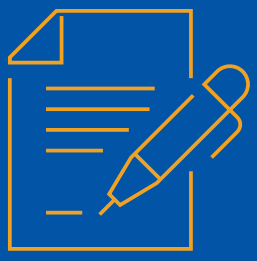
- ML Libraries - SciKit Learn, Keras
- ML Algorithms - Linear Regression, Decision Trees, SVM

d. Deep Learning (DL)

- Introduction to Neural Networks
- DL Algorithms - NLP & CV

e. AI in Ethics

02



Hands-on Sessions

a. Python Exercises

b. Application of ML Algorithms - Linear Regression, Decision Trees, SVM

c. Application of DL Algorithms - CV & NLP

d. Auto ML on Microsoft Azure

e. Computer Sc. - Building a Chatbot

f. Arts: Hand-written digit classification

g. Botany: ML with colored images- Iris Flower

h. Media & Entertainment: Sentiment Analysis for IMDb Movie Reviews

i. Arts: Optical Character Recognition

j. Gaming: Batman v/s Superman Image Classification

03

Project Guidance & Assessment

a. Group Project on a real-world problem

b. Continuous guidance by faculty and CG Mentors

c. Mock presentation and feedback by CG Mentors

d. Final Presentation & Assessment by NUS and HPE Faculty

PARTNER PROFILE

NUS National University of Singapore

The National University of Singapore (NUS) is the first autonomous research university in Singapore. NUS is a comprehensive research university, offering a wide range of disciplines. The QS World University Rankings 2019 ranked NUS 11th in the world and 1st in Asia. The Times Higher Education World University Rankings 2018 placed NUS at 22nd in the world and 1st in Asia-Pacific, while its 2018 reputation rankings placed it at 24th globally. In 2019, it ranked 27th among the universities around the world by SCImago Institutions Rankings.

The NUS School of Computing, established in 1975 is one of the leading computing schools in the world, with faculty members who are both internationally recognised researchers and inspiring teachers.

IT offers outstanding programmes across the full spectrum of the field of computing, including Computer Science, Information Systems, Computer Engineering, Business Analytics and Information Security, as well as specialisations in emerging areas of importance such as Artificial intelligence, Internet of Things, Fintech, Blockchain, Analytics and Security.

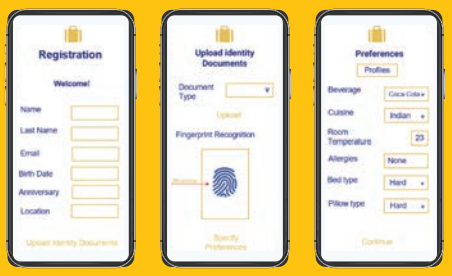
Hewlett Packard Enterprise

Change the world. At Hewlett Packard Enterprise Education, that's not just an empty catchphrase. They believe in not just looking toward the future, but creating it – with groundbreaking new technologies, products, and services that change how businesses and individuals work and live.

HPE encourages real work that makes an impact, supported by the resources of a Fortune 50 company that collaborates with leading academics and research institutes worldwide. Participants apply insights, creativity, and problem-solving skills to a specific research question, examining and refining the topic to help discover new insights and solutions.
The advanced research from Hewlett Packard Enterprise Education changes the world. They work hand-in-hand with students, bringing innovation roadmaps, integrating key technologies into existing solutions, and ensuring not only that we're more agile and nimble in today's competitive marketplace, but also accelerating how technology can drive R&D to commercialization.

At HPE Education, it is believed that technology's greatest promise lies in its potential for positive change. Learn how we can use this change to overcome challenges and make a greater impact on the global good— together. HPE researchers and engineers are not only distinguished academically, but they're also driven by wide-ranging curiosity and creativity and committed to real-world innovation. So if you have the mind of a scientist and the heart of an entrepreneur, and you dream of having a lasting impact on your field and our world, they will help you realize that dream!

PROJECT CASE STUDIES



AI + Hospitality

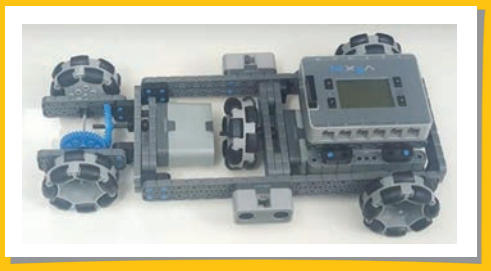
Trip Ease – an AI-based app for hotels that automates and customizes services based on a customers' needs using technology to help save their time while carrying out regular hotel service operations.

- Trip Ease app enables the customisation of an entire trip/stay at a hotel so that a regular customer can have a curated experience.
- The app enables updating of trip data as well so that preferences in terms of beverages, cuisines, room requirements, in-house shopping , etc. can be collected for an optimum experience.
- As the AI system learns a customer's likes and dislikes, the system will begin curating a custom experience itself.

AI + Medicine

NeuBand, a headset that uses EEG readings to predict oncoming seizures.

- Neulife bring together and addresses multiple issues faced by patients with CNS disorders. The product, NeuBand, comprises of a headset, that can be used by CNS patients. The headset provides an EEG scan and the data is automatically uploaded to a cloud server.
- The EEG scan data is worked on by an AI model to provide results on brain activity. Friends and family receive a notification of the results and can actively monitor the patient. In addition to the product, Neulife provides avenues for testing, consultation and further research on CNS disorders.



AI + Travel

Sparrow – an AI – powered self-driving system can convert to manual drive at the driver's will.

- Sparrow's self-driving system can convert to manual drive at a driver's will. When the detection panels on the windscreen of a car detect that the driver has lost concentration on the road, the car automatically changes to the autonomous driving mode and then provides the driver with a vibration through the chair to regain concentration.
- Sparrow has spherical wheels whose main advantage is its ability to move in different directions. This way the car will be able to coordinate its wheels according to a path that is suitable to prevent any accident. The spherical wheels also have the advantage of increasing the efficiency of the car. The wheels have a pressurized core system which allows it to regulate tyre pressure which will in turn counteract the pressure applied by the sharp objects.

AI + Road Safety

Utilization of AI to control driving behavior

- An AI controlled user-interface that communicates with the driver and adjusts the car's controls depending on the mood of the driver.
- RFID Trackers and the optional Black Box (to be used only in extreme cases) will help the police monitor data of the driver along with the information gathered by the AI.
- While driving, the AI uses the data it has gathered so far to make sure that you do not go into a 'road rage' phase, and if you do it will make you come out of that phase.

Faculty Profile

Dr. Mehul Motani

Associate Professor
Department of Electrical and Computer Engineering
National University of Singapore

Dr. Mehul Motani received the B.E. degree from Cooper Union, New York, NY,the M.S. degree from Syracuse University, Syracuse, NY, and the Ph.D. degree from Cornell University, Ithaca, NY, all in Electrical and Computer Engineering. Dr. Motani is currently an Associate Professor in the Electrical and Computer Engineering Department at the National University of Singapore (NUS) and a Visiting Research Collaborator at Princeton University, USA.

He is also amember of the NUS Institute for Data Science, the N.1 Institute for Health,and the NUS Smart Systems Institute. He was also a Research Scientist at the Institute foInfocomm Research in Singapore, for 3 years, and a Systems Engineerat Lockheed Martin in Syracuse, NY for 4+ years. His research interests include information theory and coding, machine learning, biomedical informatics, wireless and sensor networks, and the Internet-of-Things.

Dr. Motani was the recipient of the Intel Foundation Fellowship for his Ph.D. research, the NUS Annual Teaching Excellence Award, the NUS Faculty ofEngineering Innovative Teaching Award, and the NUS Faculty of EngineeringTeaching Honours List Award. He is a Fellow of the IEEE and has served asthe Secretary of the IEEE Information Theory Society Board of Governors.

Mr. Shantanu Pandey

Information & Communications Technology, Media & Information, Business & Management
Hewlett Packard Enterprise

Mr. Shantanu Pandey is a technology consultant who has worked on AI engines, systems, applications and portals for clients like TaxiForSure, OneIn-dia, CultureMachine, TableConnection, Canara Bank, HotWatch and more, with mix and match of tech. He has been training at NUS, Singapore for last 3 years conducting courses on AI, Machine Learning and IoT.

His passion for programming started at the age of six with C++ in the hope of developing games, and the awe of science has pushed him since then. After his stint with Microsoft, he got excited about the start-up ecosystem and eventually started his own company. He has also been associated with NUS and Corporate Gurukul and trained more than 10,000 students worldwide.

Shantanu's primary domains include Artificial Intelligence, Deep Learning, Machine Learning, Automation, Business, Entertainment, Fintech, Media, Services and Telecom.

CORPORATE GURUKUL | AI Internship for Young Achievers

Selective. Immersive. Transformational. What will the Internship be for you?

WHO SHOULD APPLY ?

This internship is recommended for you if:

You are a student of Grade 8-12 who:

- Is interested to understand the basics of AI and Machine Learning
- Wants to apply AI and Machine Learning in the field of Arts, Biology, Engineering & Technology, Medicine, Finance & Economics, Media & Entertainment, Science, Law and more..

PRE-REQUISITES

- You display criticial thinking, problem solving and collaboration skills
- You're passionate to solve real-world problems and create impact by developing application using Machine Learning and AI
- You have a keen interest in Math and Coding

SELECTION CRITERIA

All applications are scrutinized on the basis of:

- Overall academic performance (grades) in current year or previous year
- Career Goals – Should be aligned to solving busines problems using technology

DATES & DEADLINES

Refer Website

INTERNSHIP FEE

SGD 1499

EMI - Zero Interest 6/9/12-month

One Time Payment - SGD 1299 (SGD 200 off!)

CORPORATE GURUKUL | AI Internship for Young Achievers

REGISTRATION PROCESS

Apply Now

Create your account and fill up the online application form here.

Selection

We will scrutinize your application on the basis of CGPA & Projects/Courses done

Offer Letter

If you are selected, we will have an interaction with you and your parents on career goals. This will be followed by an Offer Letter.

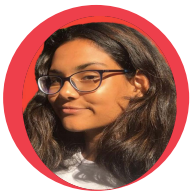
Internship Fee Payment

We will send you an invoice link for the Internship Fee payment. This is enabled through PayPal.

Admission Letter

Hooray! Your admission is confirmed via an Admission Letter

ALUMNI SPEAK



The programme has been a good opportunity to network with students across the globe and get to know them better every session.

Arushi Cavale
SJI International School, Singapore

This programme has been real learning platform for me. It has changed my perspective and my method of approaching complex problems.
The instructors were very welcoming and spent time with understanding our projects and giving valuable feedback.

Niyathi Pramod
Our Own English High School, Sharjah

I enjoyed every bit of the programme – the interviews, working with different people, and especially the hard work during the project. Neither I nor my parents were aware of all the potential I had.

Gagan Khinwasara
Global Indian International School, Pune

This was a tremendous journey with confronting real-life issues and happenings. The coordinating faculty were providing overwhelming support by helping with rescheduling of sessions to ensure I do not miss out on any session. All the sessions went as planned exposing us to the new realm and how we should work in order to cooperate these ideas and changes.

Vidit Bhandari
The Emerald Height International School, Indore

The programme helped me brush up my thinking skills as it demanded spontaneity and thinking out-of-the-box. It is surely an experience that would help me in the future; be it as an enhanced CV or as an aid to career choice.

Anushree Gupta
Daly College, Indore

The programme is a wonderful platform. It provides transformational experience to participants and also aids enhancement of life skills. The team is extremely professional and the whole programme was well managed

Aman Fareez
Delhi Private School, Dubai

It was an enlightening experience to present our research project before the esteemed faculty of NUS and NTU. I sincerely thank the Corporate Gurukul team for providing us with the opportunity along with constant guidance in the successful completion of our project.

Ankit Mohanty
Delhi Private School, Dubai

It provided great experience and knowledge to understand problems around us, how to analyze, tools and techniques and prioritize the solutions.

Nidhi
Oakridge International School, Bangalore

LEARNING OVERVIEW

Introduction to AI & ML, Introduction to Neural Networks & Deep Learning, Real-world application using AI and big data.

DURATION: 12 weeks

- INTRODUCTION TO AI
- COMPARE AND CONTRAST THE VARIOUS TYPES OF ML ALGORITHMS.
- DESCRIBE THE PRINCIPLES BEHIND VARIOUS ML ALGORITHMS
- FUNDAMENTAL IDEAS BEHIND NEURAL NETWORKS AND DEEP LEARNING
- IMPLEMENT SUPERVISED LEARNING ALGORITHMS USING AVAILABLE TOOLS AND LIBRARIES.
- EXPLORING MACHINE LEARNING AND AI IN THE REAL WORLD
- CASE STUDIES/ DISCUSSION ABOUT ML/AI IN THE REAL WORLD
- REAL WORLD PROJECTS USING AI

HOW DOES THE PROJECT WORK?

01

CONCEPTUAL LEARNING SESSIONS

Conceptual understand of AI, Machine Learning and Deep Learning along with their applications in real-world.

02

HANDS-ON PRACTICE

Hands-on Sessions and Assignments help you apply the conceptual learning to simulated environments and applications.

03

PROJECT GROUP FORMATION

The students are grouped based on complimentary skill sets in math, coding and domain expertise combined performance in the NUS Sessions.

04

PROJECT SELECTION

The groups select an internship project in their preferred domain and a real-world problem which they can solve using AI.

05

PROJECT ROLL OUT

Group start working on their internship project based with guidance from faculty of NUS and HPE.

06

PROJECT SUBMISSION

Completed project is submitted to NUS and HPE faculty.

07

PROJECT PRESENTATION

The group present their project to assessors from NUS and HPE.

08

PROJECT ASSESSMENT

Formative and summative assessment of student projects. Letter of Recommendation for top project.

ALUMNI DESTINATIONS

Sumedh Rathi
Alumni (Research and Innovation Programme) Received admit from University of California, USA

Naquiya Barwaniwala,
Alumni (Research and Innovation Programme) Received admit from Drexel University, Pennsylvania, USA

Anushree Gupta,
Alumni (Research and Innovation Programme) – Received admit from UCL, London, UK

Pratyusha Nyati,
Alumni (Research and Innovation Programme) - Received admit from Singapore Management University, Singapore

Om Gupta,
Alumni, (Research & Innovation Programme), Received admit at University of Oxford

Ankit Mohanty,
Alumni, (Research & Innovation Programme), Received admit at University of Wisconsin-Maddsion

Shivam Mulchandani,
Alumni (Research and Innovation Programme) Received admit from UCL, London, UK

Aamir Nazir
Alumni (Research & Innovation Programme)
Google Assistant Developer - Developed Action for Google assistant that gained over 100,000 users.

TOP PARTICIPATING SCHOOLS

INDIA

Woodstock School Mussoorie,

Chirec International School Hyderabad

The International School, Bengaluru

Scottish High International School, Gurgaon,

Cathedral and John Connon School, Mumbai

Bangalore International School, Bengaluru

Oakridge International School, Bengaluru

Indus International School, Pune

UAE

DPS, Sharjah Dubai

The Winchester School, Dubai

The Millennium School, Dubai

GEMS Modern Academy, Dubai

SINGAPORE

Global Indian International School (GIIS), Singapore

Anderson Serangoon Junior College, Singapore

SJI International School, Singapore

LEARNING FOR LIFE

We believe in creating value for our students across their journey in life. Hence our interventions are designed throughout your learning journey for life - from school to university to industry. Our recommedations during your School Journey which progressively builds your skills through applied experiential learning interventions.

GRADE 7-8

Leading and Practicing Social Change
ONLINE CERTIFIED INTERNSHIP

GRADE 8-12

AI Internship for Young Innovators (AIYA) ONLINE CERTIFIED INTERNSHIP or EXPERIENTIAL ON-CAMPUS

GRADE 8-12

Global Research and Innovation Programme (GRIP)
ONLINE CERTIFIED INTERNSHIP or EXPERIENTIAL ON-CAMPUS

GRADE 11-12

Entrepreneurship and Tech Innovation
ONLINE CERTIFIED INTERNSHIP

CORPORATE
GURUKUL

13 years | 21 countries | 30+ cities | 15 nationalities
40+ schools | 70+ universities | 150,000+ alumni
50+ faculty | 200+ research scholars
10+ applied learning programmes

If you come into it with a sense of purpose or desire for impact and you know perhaps where you want to channel it the GAIP will really help you unleash that

#GoodToGreat

Apply Now. Scholarships Available.

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Singapore HeadQuarter: 1 Wallich Street, #14-01, Guoco Tower, Singapore 078881
India Registered Office: 2201A World Trade Center, Brigade Gateway, Malleswaram, Bangalore 560055

For more information on registration for the programme
Email: contact@corporategurukul.com
Website: www.corporategurukul.com