

SHIVANI AC

Student | Innovator | Storyteller | Environmental Advocate

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ABOUT

I am a STEM aficionado with a special passion for sustainability. My love for problem-solving makes me an innovator who thrives outside their comfort zone. Deeply invested in social justice and mental health, I am storyteller of all sorts. As a student, I am a tenacious seeker of knowledge constantly looking for new ways to learn. I aspire to become an engineer who can craft to sustainable, social innovations.

SKILLS

TECHNICAL & PROFESSIONAL SKILLS

- Computer Languages: Java, Python, HTML, CSS & JavaScript
- Research, Data Analysis & Scientific Writing
- Design Thinking & Innovation
- Environmental Stewardship
- Media Editing: Photoshop, Canva
- Digital Marketing & Growth Strategy

SOFT SKILLS

- Leadership & Project Management
- Critical Thinking & Problem-Solving
- Precision & Attention to Detail
- Communication & Public Speaking
- Collaboration & Teamwork
- Global Awareness
- Networking & Relationship Building
- Storytelling & Writing

HONOURS & ACHIEVEMENTS

- Obtained All-India & Abroad merit position of 6 and rank of 561 placing me in the top 0.2% of the exam takers. Placed 1st in the district and 3rd in the state merit-wise with an aggregate of 98.80% in the ICSE Grade X Exams 2022.
- One among the 25 select south-asian students to attend the prestigious PROMYS India 2023 at IISc Bangalore with full scholarship.
- Appreciated by the then Minister for Municipal Administration and City Corporation Commissioner for co-presenting research on sustainable paper composting using termites at the Clean Coimbatore Conclave.
- One of the youngest people to assist a C-Level Executive.
- Won Bronze Honour at the International Youth Math Challenge 2022.
- Awarded as the Best Speaker at the ASISC state-level Debate Competition 2021, and represented Tamil Nadu in the National Edition.
- Honoured as the Outstanding Delegate at the SOUL MUN 2022.
- Obtained C1 Advanced English certification as early as seventh grade.
- Won multiple intra- and inter-school spelling bees, math quizzes, science quizzes, drama competitions and more.

STANDARDISED TEST SCORES

CI ADVANCED

APRIL, 2019

Overall: 193/Grade B

Reading: 197 | Use of English: 193 | Writing: 186 |
Listening: 201 | Speaking: 188

SAT

AUG, 2023

Overall: 1540

Reading & Writing: 750 | Mathematics: 790

EDUCATION

INDIAN SCHOOL CERTIFICATE (ISC)

K'SIRS INTERNATIONAL SCHOOL

2022 – PRESENT

- Subjects: English; Mathematics; Physics; Chemistry; Biology; Computer Science; Socially Useful & Productive Work (SUPW).
- Grade (Class 11): A+ (99.25%)

INDIAN CERTIFICATE OF SECONDARY EDUCATION (ICSE)

K'SIRS INTERNATIONAL SCHOOL

2014–2022

- Subjects: English; Tamil; Mathematics; Science (Physics, Chemistry, Biology); History, Civics & Geography; Environmental Application; SUPW.
- Grade: A+ (98.80%)

SCHOOL EXTRA-CURRICULARS

VICE-PRESIDENT

K'SIRS STUDENT COUNCIL

2023–24

- Elected to represent 1000+ students.
- Ideated and launched “The K'sirs Bulletin” to inform students about growth opportunities in and out of school, council initiatives, and school-wide updates.
- Formed and directed a student research team to identify and solve student concerns.
- Screened a documentary to raise awareness about women in STEM.

COLLECTER & CURATOR

HERBARIUM TEAM

2022–24

- Teamed up with 15 peers to co-establish the school herbarium.
- Collected and curated 200+ tree samples.

HEAD EDITOR

STUDIO K'SIRS

2022–24

- Planned, wrote, designed, and optimized diverse content types including the yearbooks, event invites, banners, posters, brochures and more.
- Previously acted as a junior writer from 2020.

SENIOR BLOGGER

K'SIRS PRESS

2021–24

Wrote and edited multiple blogs on STEM, sustainability, and the environment.

LEADER, SINGER & GUITARIST

K'SIRS MUSIC BAND

2017–24

- Led the band from 2022 to 2024.
- Performed a range of music styles (carnatic, folk, melodies, rock) at school events, community visits, awareness drives, etc.

STUDENT COUNCIL VOLUTEER

K'SIRS STUDENT COUNCIL

2022–23

- Honoured as one of the best volunteers.
- Played key roles in planning and executing events including alumni meets, sports & cultural days, pongal celebration, graduation, farewells, etc.

OTHERS

- Facilitated a workshop series to teach research skills to 50+ peers.
- Participated in the Oxford Uehiro Centre's Practical Ethics and Responsibility competition in 2023.
- Took Guitar, Silambam, Parai, and NALS' leadership training, outdoor obstacle course, and wall climbing classes.
- Represented my school at the 2019-20 CISCE Throwball Tournament.

ACTIVE MEMBER

SOCIAL RESPONSIBILITY CLUB

2018–24

- Presented sustainability initiatives at the Clean Coimbatore Conclave, the Kovai Seed Festival, the K'sirs Greenathon, and Kumaraguru's Energy Day Celebration.
- Played key roles in writing and filming an awareness documentary on sustainability.
- Campaigned for awareness on child abuse at Kumaraguru.

MC TEAM

2020–24

Displayed strong writing, communication, public speaking and peer mentoring skills to ensure smooth program flow and engaging experiences.

MIDEA HUB (MEDIA CLUB)

2022–24

Peer-mentored 30+ high schoolers in design, editing and multimedia.

SENIOR DANCE TEAM

2022–24

Performed classical and freestyle choreographies in alumni meets, graduation, farewell, and children's day celebration amongst other events.

ASTRONOMY CLUB

2022–23

- Shared astronomical knowledge and curiosity in indoor classes and outdoor stargazing sessions.
- Observed the rare green comet (C/2022 E3).

BOND BEYOND BOUNDARIES TEAM

2019–20

- Teamed up to host students from the Yankee Club of Roxbury in Coimbatore in 2019 & 2020.
- Facilitated meaningful cultural exchanges by organizing activities that allowed for mutual understanding and appreciation of diverse perspectives.

ENTREPRENEURSHIP CLUB

2019–20

Applied business acumen to co-conceive and co-execute a one-day entrepreneurial exhibit at the Science Fair and made a profit of 10,000 INR.

SOCIAL INITIATIVES

FOUNDER

VIZHI

2023–PRESENT

- Founded Vizhi, a social initiative aimed at making sustainability a convenient lifestyle and household practice.
- Existing green solutions are fragmented and lack a centralized platform. Vizhi bridges this gap by effectively integrating technology, community, and sustainability advocacy to build a one-of-a-kind online resource hub that:
 - provides users with tailored resources and information on the locally available and easily adoptable sustainable solutions; and
 - empowers individuals to make data-driven, sustainable consumer choices and seamlessly embrace sustainable living practices.

CO-CONCEPTUALISER

J VINAIYŪKKIKAL

2022–PRESENT

- Co-conceptualised & established J Vinaiyūkkikal, a student leader collective that conducts one-day, interactive, activity-based leadership workshops for students who can't access and/or afford leadership skills development programmes.
- Our first workshop at TKS Higher Secondary School helped 30+ students develop leadership skills.

FREELANCE STORYTELLER

THE SUNNY SOLUTION

2021

- Wrote and filmed an animation short-film titled “The Sunny Solution” to raise awareness on mental health.
- Reached 800+ individuals through the film.

RESEARCH & SUMMER PROGRAMS

PROMYS INDIA

INDIAN INSTITUTE OF SCIENCE, BANGALORE

2023

- Selected as 1 of the 25 south-asian students to attend the fully-funded, 6-week residential math summer programme at IISc Bangalore.
- Completed the rigorous first-year Number Theory course under Prof. Ila Varma.
- Co-wrote and co-presented a research paper on Pick's Formula and Euler's Theorem to a panel of professors, including Sujatha Ramdorai, Ila Varma, and Adithya Karnatiki, as a part of first-year exploration labs.
- Attended guest lectures delivered by renowned Mathematicians including Parthanil Roy, Kiran Kedlaya, Alina Bucur, Apoorva Khare, Sujatha Ramdorai, and Padmavathi Srinivasan.
- Took up mini-courses in Topology of Metric Spaces, Graph Theory, Automata Theory, and The Cycle Lemma & Ballot Problem.

SELF-PACED PROGRAM

GIRLS WHO CODE

2023

- Completed 7 certification courses in basic web development using HTML, CSS, JavaScript, intermediate applications of Python in cybersecurity, and data science over the 6 weeks.
- Attended Advisor Events and Tech Talks in the topics of Data Science & AI, Cybersecurity and Web Development.
- Developed a multi-page website advocating for menstrual health awareness.
- Researched the 2017 National Health Services data breach and presented it through a Python chatbot.
- Evaluated, wrote and presented a datastory about the contrasting women literacy rates and the rate of their representation in workforces using Python.

INDEPENDENT SCHOLAR'S PROGRAM

THE GROWTHOSPHERE

2022–23

Worked with The Growthosphere's client Growing Young to build a research database and produce an independent project on the science behind aging.

THINKING AHEAD PROGRAMME

TEDI LONDON

2022

- Learnt and applied principles of design thinking and sustainable engineering to design a floating community space for people with mental health issues.
- Learnt the interdisciplinary aspects of math, physics and sustainability in terms of engineering theories.

SUMMER SCHOOL ON USEFULNESS OF REMOTE SENSING AND GIS IN ENVIRONMENTAL STUDIES

INDIAN INSTITUTE OF REMOTE SENSING, ISRO DEHRADUN

2021

Completed a 10-hour course on remote sensing, geographic information systems (GIS), and their applications in environmental & climate studies.

NURTURE NATURE CAMP

SIRUTHULI

2018

- Attended hands-on sessions on various thematic areas like Water, Forests, Waste Management, etc.
- Studied the various aspects of environment, the issues plaguing them, and the need to preserve them in the context of Coimbatore's ecosystems.
- Went on field visits to places like the Vellalore dumpyard, the Ukkadam wetlands, the 105 RAF campus, Anna University's Miyawaki Forests, etc. to understand their relevance in Coimbatore's environmental issues.

RESEARCH PAPERS

PICK'S FORMULA AND EULER'S THEOREM 2023

Co-authored paper presenting a general overview of the Pick's formula and Euler's theorem and proposing an extended version of the Euler's theorem by introducing new elements.

IMPACT OF HORMONES ON WOMEN'S MENTAL HEALTH 2023

Independent research paper that includes literature review as well as a survey results analysing the topic.

IN THEIR ELEMENT: A DEEP DIVE INTO GREEN CHEMISTRY 2023

Literature review on the timeline of green chemistry: its origin, its present principles and future trends.

VERIFICATION AND ANALYSIS OF BACKGROUND RADIATION USING A DIFFUSION CLOUD CHAMBER 2023

Literature review and investigative/experimental report on background radiation in my surroundings.

ENGLISH ANTHOLOGY 2021-23

Collection of 12 character sketches, thematic analysis and literature reviews written on Merchant of Venice, The Tempest, Dover Beach, Salvatore and other literary works.

INTERNSHIPS

PROSTHETIC RESEARCH & DESIGN INTERN

IMERXN 2021-2023

- Interned under industry mentor and product innovation expert Krish Srikant to design affordable, good-quality prosthetic hands for Indian amputees.
- Interacted with doctors, surgeons, rehabilitation experts and prosthetic users to gather knowledge about prosthetics.
- Applied design thinking, research skills, the biomechanics of the human hand & basic prosthetic design skills to write user-centric design briefs.

KEY ACCOUNTS ASSISTANT

G100 GLOBAL CHAIR FOR CIRCULAR ECONOMY 2022-2023

- Assisted Anja Carron in her work as the G100 Global Chair Of Circular Economy, at 16-years-old, to become one of the youngest people to assist a C-Level Executive.
- Interfaced between Anja and her C-suite connections.
- Forged and maintained lucrative, long term relationships with these connections.
- Structured and templatised the onboarding of new G100 CE Chairs.
- Exercised skills in circular economy, sustainability, and cross-cultural communication.

MATH ANTHOLOGY 2021-23

Collection of 6 mathematical literature reviews, experimental reports, and research reports.

CHEMICAL ENERGETICS 2022

Literature review on chemical thermodynamics & energetics and their applications in material science, biochemistry, chemical engineering and sustainability.

THE 'NEEEEEEOOWWM' EFFECT 2022

Literature review on the Doppler Effect.

DARK MATTER: MATTER THAT CAN'T BE TOUCHED 2022

Co-authored paper on dark matter, galactic collisions, gravitational lensing and WIMPS.

THE ENVIRONMENT AND SUSTAINABILITY ANTHOLOGY 2020-21

Collection of 7 literature reviews, research reports and case studies written on ecology, environment, and sustainability.

UNDERSTANDING UNICEF 2021

Literature review and investigative report on UNICEF.

THE KINGS OF INDIA 2021

Tamil research report on the lives of two Indian kings: Veerapandiya Kattabomman and Maharana Pratap.

MILAN GLOBAL

PROGRAM COORDINATOR 2022-23

- Exercised research, analytical, organisation and leadership skills to successfully productise and templatised the Growthosphere Simulation conferences.
- Responsible for efficiently and smoothly conducting the editions of the conferences.

PROJECT MANAGER 2021

Led the marketing and storytelling team for MYP Club (now, The Growthosphere) and oversaw the execution of the platform's social media strategy.

BUSINESS DEVELOPMENT GIG 2021

Worked as a part of the business development team to design and launch a demand validation survey.

DATA TEAM APPRENTICE 2020

Responsible for data entry and management as a part of the no-code development of an internal app.

STORYTELLER 2020-21

Created, curated and designed content for the social media pages of MYP Club.

YOUTH 4 CIRCULAR FUTURE

COMMUNITY CATALYST 2022-23

- Active part of the student community learning and working together to craft a circular and regenerative future.
- Successfully completed the “Unmasking Packaging” programme under Christine Leveque, Thomas Groener, Mara Jensen, Anja Carron and Ike Nnaebue to understand sustainability in the context of packaging.
- Co-wrote an open letter calling for companies to invest in sustainable packaging initiatives.

CONVERSION CATALYST 2022-23

Structured and led the youth outreach nexus in cultivating key, long-term relationships with global mentors.

RESEARCH INTERN 2021-22

Built a database of sustainable initiatives and circular technologies from around the globe.

COURSES & CERTIFICATIONS

GIRLS WHO CODE JULY, AUG 2023

INTRO TO DATA SCIENCE

- Learnt the data science pipeline: Define, Collect, Clean, Analyze & Interpret, and Visualize.
- Applied the pipeline to examine datasets and create visualizations of findings using Python.
- Analysed how bias affects data interpretation.

DATA SCIENCE FOR GOOD

- Mastered how to evaluate a dataset for reliability and trustworthiness.
- Evaluated a dataset on women’s well-being, wrote a datastory on my findings, and presented it using Python.

INTRO TO CYBERSECURITY

- Explored cybersecurity, its applications and the CIA Triad.
- Researched data breaches and designed a Python chatbot to transfer learnt knowledge.
- Reflected on effect of privilege on cybersecurity.

INTRO TO CRYPTOGRAPHY

- Studied encryption, its applications, the importance of cryptographic technologies and significance of accessible ones.
- Wrote an accessible Python program to encrypt and decrypt messages using the Caesar cipher.

BEGINNER HTML AND CSS

- Planned websites using wireframes, and translated visual ideas into HTML structures.
- Designed a multi-page website using HTML & CSS.
- Focused on the importance of accessibility on a webpage and implemented them on the website.

SOCIAL MEDIA MANAGER

BECOME PEACEFUL 2021

- Responsible for co-creating and executing the social media strategy for Become Peaceful, a mental health initiative for working professionals founded by renowned clinical psychologist Shoba Managoli.
- Set up the social media pages and created content for the pages.
- Exercised research skills, content creation skills as well as applied knowledge of mental health.

DIGITAL MARKETING INTERN

POWERFUL DIALOGUES 2020

- Was a part of the digital marketing and newsletter strategy team for Powerful Dialogues, an initiative to equip mental health professionals with tools to enhance and scale their practice.
- Wrote and sent out newsletters to over 150+ clients.

BEGINNER JAVASCRIPT

- Connected HTML, CSS, and JavaScript to develop a dynamic webpage; to use variables, the DOM, and event listeners to track user input; and to change HTML elements based on user input.
- Built a personality quiz that returns an outcome based on the respondent’s inputs.

WEB DESIGN FOR SOCIAL GOOD

Combined HTML, CSS, and JavaScript to build a website advocating for menstrual health awareness and curating information about the same.

BE THERE CERTIFICATE

JACK.ORG & BORN THIS WAY DEC, 2022

Completed the mental health literacy course to gain the skills needed to recognize if anyone is struggling with mental health issues and safely and effectively support them in getting the help they deserve.

USEFULNESS OF REMOTE SENSING & GIS FOR ENVIRONMENTAL STUDIES

INDIAN INSTITUTE OF REMOTE SENSING, ISRO DEHRADUN AUG, 2021

Studied remote sensing, geographic information systems and their applications in environmental science and climate change, especially in disaster management, water security, agriculture and urban planning.

ANIMATION MOVIE-MAKING & STORYTELLING

THEIA INTERNATIONAL & SOULIFY APRIL, 2021

Undertook stop-motion animation film-making and impactful storytelling under Siddharth Maskeri.

COMMUNITY SERVICE

YOUTH AMBASSADOR, PEER MENTOR

ACTION4HAPPY KIDS (A4HK) 2021-24

- Teamed up with the 1st generation youth circle to build the A4HK community and support kids in creating a happy world for themselves.
- Played key roles in establishing the founding principles, writing grant proposals, designing the website, and running the social media strategy.
- Currently, serving mentor for the 2nd generation youth circle in their work with Masai tribal women and children.

SPRINT VOLUNTEER

CRY INDIA 2022

- Contributed in the Period Shame Campaign.
- Reached 150+ students, pharmacists, working individuals, etc. through in-person and online advocacy.
- Raised over 5000 INR as funds in the last week.

HOBBIES & INTERESTS

- **Language:** Poetry Writing, Reading Books.
- **Dance:** Free-style, Bharatanatyam (trained).
- **Music:** Singing (trained in Carnatic), Guitar (trained).
- **Sports:** Tennis, Throwball, Badminton and Volleyball.

REFERENCES

LALITHA PRAKASH

EXECUTIVE DIRECTOR, KAUMARAM SUSHILA

INTERNATIONAL RESIDENTIAL SCHOOL

Relationship: Academic Advisor, Teacher

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GAYATHRI D

CHEMISTRY TEACHER, KAUMARAM SUSHILA

INTERNATIONAL RESIDENTIAL SCHOOL

Relationship: Chemistry Teacher, Class Teacher

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JAYAPRADHA K

PHYSICS TEACHER, KAUMARAM SUSHILA

INTERNATIONAL RESIDENTIAL SCHOOL

Relationship: Physics Teacher

Email: career@ksirs.in

CHANTHRU K

BIOLOGY TEACHER, KAUMARAM SUSHILA

INTERNATIONAL RESIDENTIAL SCHOOL

Relationship: Biology Teacher

Email: career@ksirs.in

CURRICULUM COORDINATOR & OUTREACH LEAD

SCI-HUB 2020

- Sci-Hub, a youth science literacy initiative established to support students pursue careers in science.
- Facilitated internal and external communication, administration, and workflow management.
- Contributed in curating and designing the curriculum and academic materials required for their line-up of workshops.

VOLUNTEER (CURRICULUM DESIGN)

SUKRUPA 2020

Designed the science and social science curriculum, lesson plans and other educational content for underprivileged middle & high school students studying through SUKRUPA during the COVID crisis.

LANGUAGES

- **English:** Native/Bilingual Proficiency
- **Tamil:** Native/Bilingual Proficiency
- **Hindi:** Professional Working Proficiency
- **German:** Elementary Proficiency

KRISH SRIKANT

MENTOR, IMERXN

SPECIALIST - STARTUP VENTURES, INNOVATIONS @ HEALTHCARE, ENERGY & TECH;

VISITING FACULTY, ACARA PROGRAM @ UNIVERSITY OF MINNESOTA

Relationship: Mentor

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ANJA CARRON

FOUNDER AND CEO, THEIA INTERNATIONAL;

GLOBAL CHAIR OF CIRCULAR ECONOMY, G100

Relationship: Mentor, Direct Manager

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MALINI SRIKRISHNA

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