THANUSH SAKTHIVEL

INTENDED MAJOR

Material Sciences; Industrial Engineering

EDUCATION

Golden Gates Earth School (IGCSE - International General Certificate of Secondary Education, AS Level and A Level) [June 2022- March 2026]

- A Level Subjects: Mathematics (Pure and Mechanics); Chemistry; Physics
- AS Level Subjects: Economics; Mathematics (Pure and Probability and Statistics); Physics; Chemistry; English General Paper
- IGCSE Subjects: Accounting; Business Studies; Combined Sciences: Physics, Chemistry, Biology; Extended Mathematics; Global Perspectives; English as First Language; Tamil as O Level

Emerald Valley Public School (Central Board for Secondary Education) [2019-22]

• Subjects: Mathematics; Social Science; History, Geography; English; Tamil; Sciences: Physics, Chemistry, Biology; Information Technology.

ACADEMIC HONORS & CERTIFICATIONS

- A* in 6 IGCSE & O Level subjects (Extended Mathematics, Combined Sciences, Global Perspectives, Accounting, Business Studies, Tamil O Level).
- A in IGCSE English as First Language.
- Cambridge International Certificate in Education (ICE)
- School Academic Topper for IGCSEs (AY 2023-2024)

FOUNDER

Founder, Luxe (2023-present)

- Established Luxe, a sustainable traditional clothing brand focused on ecoconscious conventional fashion.
- Conducted research and integration of sustainable materials like banana fiber and hemp into Indian traditional wear.
- Started initiatives to introduce sustainable practices into the mass market for traditional wear, aiming to reduce environmental impact significantly by ideating cost-effective, mass-produced, sustainable clothing.
- Introduced final products made out of hemp and banana fibre in the traditional Indian clothing space at trade fairs, e-commerce, and sustainable exhibitions.
- Involved in educating weavers in Tamil Nadu about the environmental costs of polyester clothing and created opportunities to manufacture sustainable fabrics under the luxe label; through this, recruited 18 weavers to manufacture luxe label garments.

Founder, Urban Sprouts (2024-present)

Urban Sprouts is a sustainability-focused startup developing an app and workbook that helps urban residents transform unused household spaces into functional green zones for culinary and utility plants.

- Designed the UX and UI framework for an intuitive platform that integrates sustainable living with modern home aesthetics.
- Developing AI-driven growth strategies that tailor plant care plans based on weather, available space, time commitment, and lifestyle (currently in early research stage).
- Created a modular design system to guide urban users in converting small or unconventional areas—such as under furniture or along walls—into productive plant spaces.
- Preparing for pilot testing and collaborations with sustainability and homedesign networks.

INTERNSHIPS

Intern – Garmenting & Industrial Engineering at Hela Kenya, Nairobi, Kenya (June 2025)

- Gained hands-on exposure to the garment manufacturing process, from raw material handling to final product finishing, while exploring Africa's growing role in the global textile and apparel industry, including market potential and sourcing advantages.
- Took up an active role in industrial engineering practices on the factory floor, focusing on workflow optimization and efficiency metrics for 75 lines of production with over 2000 employees under the keen supervision of the general manager.
- Researched and analyzed textile production trends and procedures in various global markets such as Vietnam, India, and China to implement these practices to meet regional variations and consumer demands.
- Acted as the global liaison and designed tradestalls to align the brand to international technical specifications, quality standards, and brand identity to be enticing to international clients.

Intern at True Saai Works, TATA Motors. (April - May 2023)

- Gained cross-functional experience by working as an intern to the CEO with rotations in finance, sales, HR, and customer relations departments.
- Played an active role in digitising the CEO's company-wide tracking metrics, bringing sales, service, and targets data from 27 automobile dealerships by setting up a Power BI dashboard.

- Planned a training program for the 200 sales executives across all dealerships
 to utilize custom AI tools to sharpen customer recognition, pitch plan, discount
 planning, and service effectiveness, leading to a higher customer conversion
 rate per week by 10% while reducing the time spent in backend customer
 research.
- Worked alongside the service head to understand vehicle mechanics and engineering principles within the flagship service workshop, and performed a waste management audit to sustainably scrap automotive metal and battery waste.

Intern at Kandaswarna and Co. (2019-present)

- Strategized the next-gen business development to identify potential international markets to expand into and launched the B2B company's website for effective customer outreach and online presence.
- Orchestrated the Canada market expansion project by identifying potential customers, designing marketing materials, and running risk analysis.
- Worked with the manufacturing team to digitize the design-to-end product process by setting up a production management app that is user-friendly to blue-collar labor, which tracked development progress and worker efficiency at every step, resulting in increased labor productivity by 14%
- Assisted in designing the company's new headquarters' office floor to enhance cross-department interaction and collaboration, to reduce communication bottlenecks, and promote operational speed.

Sambandam Spinning Mills Ltd (May 2024)

- Mentored by the Chairman and Marketing Director to master end-to-end production of diverse yarns, including specialty technical and biodegradable, and studied mass-scale garment manufacturing.
- Collaborated on sustainable production upgrades to align with EU market regulations, significantly boosting appeal to global fashion brands.
- Developed engineering expertise on specialized machinery for yarn quality control and performance testing; executed calibrations to align with global standards.
- Assisted in training over 500 factory ground staff on safety protocols, sustainable production, and fostering a culture of accountability and compliance.
- Contributed to designing a company studio showcasing the firm's legacy and sustainability initiatives, enhancing client engagement.

ENTREPRENEURSHIP PROGRAMS

IMERXN Young Innovator's Program (June 2023)

- Selected to represent the school in an incubator's startup program and gained knowledge of business workflows, key entrepreneurial principles, and the endto-end process of launching a new venture.
- Collaborated with a global cohort of young entrepreneurs in workshops, exchanging business ideas and perspectives.
- Developed a comprehensive business plan for a sustainable clothing venture with emphasis on profitability, mass production capabilities, and lean logistics.

Young CEO Program, Indian Institute of Technology Madras (July 2025)

- Attended a 4-day immersive entrepreneurship program along with 50 selected students from top schools, designed to teach hands-on ideation, business design and modeling, market research, pitching, accounting, and branding for nascent startups.
- Moderated a panel discussion with entrepreneurs and CEOs from diverse unicorns, gaining real-world insights on opportunities, startup processes, and inspirational personal stories.
- Under the mentorship of a heat-resistant yarn startup entrepreneur, I designed a business model for an electro-conductive outerwear garment to bring about an innovation in the wearable tech space.
- Winner Best Startup Pitch Award in a Shark Tank-style finale, recognized for innovation, clarity, and business viability.

COURSES AND CERTIFICATIONS

Introduction to Product Design - Georgia Institute of Technology (September 2025)

- Gained foundational knowledge of UX/UI principles, including user research, wireframing, prototyping, and usability evaluation.
- Developed skills in user-centered design thinking and creating intuitive, functional interfaces.

Modern Robotics: Foundations of Robot Motion | Northwestern University | October 2025

- Gained proficiency in robot kinematics, dynamics, and motion planning, including rigid-body motions, twists, and wrenches.
- Explored holonomic and nonholonomic constraints to solve complex motion problems.
- Applied theoretical concepts through hands-on projects in autonomous robotics.

Introduction to Socially Engaged Design | University of Michigan | October 2025

- Learned to integrate social, economic, and environmental considerations into the design process.
- Developed skills in stakeholder engagement, inclusive design, and cultural context analysis.
- Applied the five-stage design process (Explore, Define, Ideate, Develop, Realize) to real-world socially impactful projects.

SP Robotic Works - Level 2 Certification (2019-2020)

- Completed Level 2 Robotics Training, gaining hands-on experience in intermediate robotics and automation concepts.
- Developed a prototype mini vehicle capable of detecting obstacles, emitting warning beeps, and autonomously navigating away using sensor-based technology.

LEADERSHIP

Games Captain - Golden Gates Earth School (June 2024 - March 2025)

- Facilitated communication between 300+ students and the sports department regarding events, trials, and practices.
- Led the growth of national athletic selection from 2 to 10+ athletes and increased national athletic medallists from 2 to 7, significantly enhancing the school's sports profile.
- Collaborated closely with athletes and the management to boost participation and medal tallies in regional school tournaments.
- Managed sports equipment inventory, ensuring proper issuance and storage to maintain athlete readiness and asset longevity.

Games Captain - Golden Gates Earth School (June 2023 - March 2024)

- Assisted in coaching and selecting student-athletes for state and national-level competitions, contributing to high-performing teams.
- Coordinated large-scale sports events with 500+ participants and audience members, ensuring smooth operations and strong engagement.
- Collaborated with PE teachers and sports coordinators to execute school-wide events, including inter-house competitions and annual sports meets.
- Fostered a culture of teamwork, discipline, and sportsmanship among students through effective leadership and communication.

Director, ThinkBiz - State-wide Inter-school Competition (January 2025)

- Directed a state-wide entrepreneurship and economics competition, providing students with a platform to pitch business ideas and showcase analytical skills.
- Designed and executed competition structure and marking system for two main events, ensuring fairness and efficiency for 10 participating schools.
- Led a team of 30 student volunteers, enhancing experience for 100+ attendees, including mentors, judges, and participants.
- Coordinated logistics with technical staff and served as Master of Ceremonies, managing proceedings and maintaining smooth event flow.
- Fostered collaboration, entrepreneurship awareness, and professional presentation skills among students.

Director, Margazhi Mahotsav (city-level cultural program) (January 2023)

- Managed event finances, including preparation and oversight of the budget for a festival that attracted over 600 attendees.
- Led sponsorship initiatives, securing and coordinating with more than 6 sponsors by developing targeted sponsorship packages and proposals.
- Oversaw logistics and operations, managing almost 20 performers and 30 volunteers to ensure a seamless experience for participants and audience members.
- Directed speaker curation, event design, and comprehensive marketing campaigns to boost event visibility across the city.
- Developed and executed an efficient crowd control and safety plan for all attendees.

Captain | Emerald Valley Football Club (2022) & Golden Gates Earth School Football Team (2022–2025)

- Led teams to multiple domestic and regional cup victories, demonstrating strategic leadership and strong gameplay.
- Secured 2nd place in the U19 open club tournament with 56 participating teams.
- Achieved 4th place in statewide 5-a-side club tournament with 30+ teams and 3rd place in interclub district-level tournament with 14+ school clubs.
- Represented the school at regional-level sports meets, promoting competitive performance and school pride.
- Assisted in training sessions and team development, fostering cohesion, discipline, and teamwork.

Captain, Golden Gates Earth School Basketball Team (2023 - 2025)

- Led the U17 team to victory in a regional tournament, showcasing strategic gameplay, leadership, and team coordination.
- Achieved 4th place in the U19 open-school district-level interschool tournament, competing against top teams across the district.
- Mentored and motivated teammates, fostering discipline, teamwork, and competitive performance.

Junior School Pupil Leader, Emerald Valley Public School (June 2016 – March 2017)

- Acted as a liaison between students and faculty, ensuring smooth communication and effective information flow.
- Promoted a disciplined and respectful learning environment by upholding school rules and codes of conduct.
- Led school representation in cultural events, including debates and quizzes, demonstrating strong leadership and public speaking skills.

SOCIAL IMPACT INITIATIVES

Founder, Avani (2024 - Present)

- Founded Avani, a social impact initiative addressing textile waste by transforming discarded fabrics into durable, eco-friendly bags.
- Researched and developed bags made entirely from recycled textile scraps, each weighing ~200g and designed to last 100+ uses, replacing single-use plastic bags.
- Led a team of 12 staff across stitching and logistics.
- Distributed 10,000 bags, preventing ~1,000,000 single-use plastic bags from entering landfills (~7 tonnes of plastic).
- Recycled 2,000 kg of textile scrap into functional products, promoting circular economy principles.

Founder, Salem Fights Covid (2020-2022)

- Developed an online platform providing real-time medical information and support to residents of Salem during the COVID-19 pandemic.
- Built and launched a web portal tracking live updates for 80+ hospitals, including bed availability, vaccination centers, and testing locations.
- Partnered with local social clubs and organizations to expand community outreach and access to resources.
- The platform received 11,000+ views, directly assisting citizens in locating urgent care and essential medical supplies.
- Coordinated with medical suppliers to connect individuals with oxygen cylinders, PPE, and other critical equipment.
- Addressed gaps in public healthcare information during a crisis, demonstrating the impact of tech-driven, agile community solutions.

Sethu Meena Trust - AAKKAM (2017-2023)

- Dedicated over 100 hours educating 100+ villagers on proper waste disposal practices, significantly promoting community health and environmental cleanliness.
- Participated in 20+ awareness campaigns focused on tree conservation and environmental sustainability, actively engaging the community in eco-friendly practices.
- Played a key role in urban beautification through regular street and lake clean-ups, including the complete cleaning of two major city lakes spread over 50+ hectares, enhancing local environmental health.

Waste to Wealth Initiative Leader (December 2022)

- Spearheaded a school-wide waste reduction program, collecting and recycling 80 kg of waste into functional and creative products such as toys, photo frames, and collectibles.
- Organized sales within the school community, raising awareness about sustainability and circular economy practices.
- Developed leadership, teamwork, and project management skills while fostering a culture of environmental responsibility among peers.

Project Lead, Waste Management Awareness Campaign - Golden Gates Earth School (2022)

- Led a school-wide sustainability campaign promoting responsible waste disposal and environmental stewardship.
- Directed and produced an awareness film, mobilizing 200+ students and mentoring junior participants in campaign execution.
- Presented the initiative to the Tamil Nadu Government, strengthening youth-led advocacy for sustainable living and policy awareness.

RESEARCH

<u>Should the fashion industry adopt sustainability, and if so, how?</u> - Thanush.docx

- Conducted a comprehensive literature review and analysis of global sustainability practices in the fashion industry, evaluating environmental, social, and economic impacts.
- Proposed a framework of actionable strategies—such as circular design, waste reduction, ethical sourcing, and consumer education to guide industries transitioning toward sustainable models.
- Identified key barriers, including cost, supply chain complexity, and consumer behavior, and recommended pragmatic solutions such as policy incentives, certification standards, and collaborative platforms.

Imerxn Engineering & Computational Science Program (2025)

- Explored the Fundamentals of engineering and computational science.
- Learned how to use XFLR5 software to model and simulate different airfoils, growing knowledge in simulations, and the aerospace field.
- Working on a research paper outlining the methodology and testing required to create a custom airfoil to solve a theoretical problem, to generate maximum lift using XFLR5 software.
- Mentored by a postdoctoral fellow at Southampton University, UK.

ACADEMIC PRESENTATIONS

Atomic Physics and Radioactivity | 2023 - Golden Gates Earth School

- Presented to 100+ students and faculty on isotopes, the origin of radioactivity, and advanced topics such as oxygen-28 isotopes.
- Demonstrated ability to explain complex scientific concepts clearly to a diverse audience.

Pricing Strategies | 2023 - Golden Gates Earth School

- Delivered a presentation to 100+ students and faculty on business pricing strategies based on market conditions, product type, and organizational capabilities.
- Evaluated and presented case studies of multiple businesses, analyzing their real-world impact.

Production Possibility Frontier & Sustainable Metrics | 2024 - Golden Gates Earth School

- Delivered a detailed presentation on the Production Possibility Frontier (PPF), integrating economic efficiency models with sustainability metrics to evaluate optimal resource allocation.
- Analyzed trade-offs between economic output and environmental impact, demonstrating how sustainable development goals can be operationalized within production systems.
- Explored applications of efficiency, opportunity cost, and Pareto optimality in real-world scenarios, linking theoretical concepts to practical sustainability strategies.

Aakkam Herbal Tea Commercial, Marketing Exercise - Golden Gates Earth School (2023)

- Conceptualized, scripted, and produced a commercial promoting a sustainable herbal tea brand as part of a school marketing initiative.
- Emphasized eco-friendly packaging and natural ingredients to align the product with contemporary consumer sustainability trends.

ACHIEVEMENTS AND ACCOLADES

Athletics

- Gold, U17 Shot Put ISSO Athletic Meet, Gurgaon, 2023 (National Level)
- Silver, U17 Shot Put ISSO Athletic Meet, Gurgaon, 2024 (National Level)
- Gold, U17 Shot Put RAIS Athletic Meet, Coimbatore, 2024
- Actively training to represent ISSO India at the ISF World Open 2026 (International Sports Meet)

Team Sports

- Best Player, U17 RAIS Football Meet, Erode, 2023
- Best Goalkeeper, U17 Open Club Interstate Football Tournament, Salem. 2022 (State Level)
- Winners, RAIS U17 Basketball Tournament, Salem, 2024
- 4th Place, U19 Open-School District-Level Tournament, 2024
- Represented Salem U16 Cricket District Team Selected among 1,000+ players for the 15-member roster
- Best Batsman Award Straight Drive Cricket Academy U14
- Highest Strike Rate Award Straight Drive Cricket Academy U14

Individual Sports

- 4th Place, U16 Open Tennis Tournament SDTA, Salem, 2022
- Runners-Up (Doubles), U14 SDTA & Deuce Academy Tournament
- Gold, Sub Junior Taekwondo Championship Tamil Nadu Taekwondo Association (State Level)
- Achieved Blue Belt in Taekwondo

School Achievements

- Best Sportsman of the Year Golden Gates Earth School, 2022–23
- Best Sportsman of the Year Golden Gates Earth School, 2023-24

Career-Oriented Achievements

- Winner, Start-up Idea Pitch ThinkStartup Young CEO Program, IIT Madras, 2024
- Best Speaker, Vriddhi Interschool Business & Economics Symposium
 Akshar Arbol International School, Chennai, 2023 (State Level)
- 3rd Place, Innovator's Hive Vriddhi Interschool Business & Economics Symposium, Akshar Arbol International School, Chennai, 2024 (State Level)
- Most Unique Argument Award, Brihaspati Debate Meet HCL Global School, Chennai, 2022 (State Level)
- English Language Proficiency, Worldwide Education Language School
 Perfect Score (20/20) in Reading, Writing, Listening, and Speaking

EXTRACURRICULAR ACHIEVEMENTS

Quizzes & Olympiads

- Finalist, PAAVAIQ National-Level Quiz Competition Organized by Gyaanbee in collaboration with Paavai Institutions, 2024
- Top 5, Shiv Nadar EduQuest Qubiz General Knowledge Quiz Salem District Level, 2024
- Gold, IGKO Olympiad (SOF) School Level; Top 10 in District
- 1st Place, General Knowledge Quiz Sub Junior Category, Kalothsav (City-Level)

Creative & Performing Arts

- Runners-Up, Ad Show Making GFEST Inter-School Meet, City Level,
 2024
- Runners-Up, Ad Show Making Kalothsav Inter-School Meet, City Level, 2023
- Choir Member, School Vocals, 2022
- 1st Place, Tamil Essay Writing Competition Language and Literature Committee (School-Wide), 2023

STEM & Innovation

Science Expo 2019 | Thiyagarajar Polytechnic College (State-Level Exhibit)

- Selected from 400 students to represent the school at a state-level science exhibition.
- Presented a public transport prototype featuring higher efficiency, increased speed, reduced traffic, and self-driving capability.
- Demonstrated engineering design, prototyping, and problem-solving skills applied to urban mobility solutions.

Sports & Fitness

- I spend 15 hours per week, 40 weeks per year, involving tactical training for multiple sports, and captaining my football and basketball teams.
- Completed multiple 5K marathons.