

IKSHVAKU GARG

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EDUCATION

Pathways School Noida	2012 - Present
Grade 11-12 IBDP (Predicted Grade: 44/45)	2022 - 2024
Grade 9-10 MYP (9th Grade: 51/56) (10th Grade: 51/56)	2020 - 2022
Coursework: HL Math Analysis & Approaches, HL Physics, HL Computer science, SL Economics, SL Hindi, SL English	

STANDARDIZED TESTS

SAT: 1510 (EVBRW: 710 Math: 800) [27th August 2022]

TOEFL iBT: 108/120 (Reading: 28 | Listening: 27 | Speaking: 25 | Writing: 28) [14th June 2023]

AP: Chemistry [Will appear in May, 2024]

AWARDS & HONORS

- School topper & honor roll recipient in school for performance in the MYP and DP program
- Received special awards in school: The outstanding sports person award & The best leader award [DP]
- IBDP Subject Award in Hindi SL, Computer Science HL, Mathematics Analysis and Approaches HL
- MYP Subject award: Proficiency in Chemistry, Geography; Merit in Extended Math, Physics, Design
- International Finance Olympiad 2022 qualified for the national round with A+ in both the school and regional round
- International Award for Young People (IAYP) Bronze in 2021
- Competed and won in three Hackathon 2020-2023
- World Scholar's Cup 13 medals, Top5 ranking, and a gold qualification for the global round in June 2023.
- Aditya Birla Math Infinity Olympiad 2022 & 2023 Finalist (Top 50)
- Wolves of wall street Investment competition (Learn with leaders) Top 10

ENGINEERING EXPERIENCES & RESEARCH

INNOVATION (2023)

- Study of Smart Grids in Large Solar Plants, designed, optimized, coded, and prototyped a microgrid for energy efficiency improvement and energy wastage reduction; smart grid developed using IoT. Under the Mentorship of Mr Ajeet Mishra
- Awaiting the results of my applications to the **IRIS National Fair** and **CREST Gold Award** (Late November)

PUBLISHED RESEARCH ([LIISME Research Paper](#)) (2023)

- Artificial Intelligence in Sustainable Energy Industry: Status Quo, Challenges, and Opportunities
- Solar Irradiance Prediction Using Optimized Nonlinear Autoregressive Exogenous (NARX)-Coupled Deep Bidirectional Long Short-Term Memory Network Model (Publish under review)

INTERSHIPS (2022-2023)

- Jakson Group- (4 weeks) Investigated existing machine learning models used to improve solar irradiation prediction, with the goal of improving the efficiency of solar plants thereby reducing plant operational costs. (<https://www.jakson.com/>)
- DropTheQ- (3 weeks) Initial study and understanding of the Restaurant operations for India's leading Ethnic Quick Service Restaurant HALDIRAM'S. Found bottlenecks, suggested new operation flow to prevent those bottlenecks, communicated my findings to the software development team; improved company efficiency by 15%. (<https://droptheq.com/>) -

LEARNING & OBSERVATIONS (2023)

- Ravi Solar- (2 week intern) I learned how Solar Engineering, Procurement, and Construction (EPC) takes place. Analyzing plant data I observed that a large part of energy goes to waste because of human inefficiencies and cluttered energy management. This was the inception of the smart grid discussed above. (<https://www.ravisolar.co.in/>)

ENERGY & TECHNOLOGY OUTREACH (2023)

- Developed a Energy Literacy Certificate Program consisting of six teaching modules for people in my community

JEET KUNE DO & OUTREACH (MARTIAL ARTS)

TRAINING & PERFORMANCE

October 2013 - Present

- Black belt I Dan in Jeet Kune Do
- National Gold medalist- Bagged over 16 medals, including 1 national gold and 1 national silver
- Competed in 5 district, 8 state, and 2 national-level competitions

OUTREACH

Founder and sensei of Jeet Kune Do Self Defence Camps PAN India

Dec 2022 - Aug 2023

- Conducted 15 camps for 1k+ women; Developed modules for self learning using JKD
- Empowered over 1000 women to take charge and develop the capability for self protection

LEADERSHIP

Waterhouse Captain, Student Council

November 2022 - October 2023

- Elected by 600+ students; Led 200+ house members

- Lead Waterhouse to victory on sports day, a feat that eluded all 200 members for a decade.
- Organized school-wide functions (Spirit week, Sports week, Cross country, Summer fest, Concerts, Bake sales, tech week, etc), Ensured cohesion within student body and liaison between student body and faculty

Founder, The Ikshvaku Garg Talk Show (Podcast) [[Link to the Podcast](#)]

June 2022 - December 2022

- Monthly podcast to spread awareness on social and political issues through novels; 2000+ listeners across 4 countries

Founder and Engineer, The OnePutt Project (Automated Golf Putting Matt)

June 2022 - Dec 2022

- A Metatronic Golf Putting product for democratizing Golf, made cost-effective, eco-friendly using Arduino and Sensors
- Donated to 2 sports NGOs, 2 old age homes, and 1 golf course; 524 different putting combinations

President, The Investment Society (School Club)

August 2022 - May 2024

- Vice President (11th), President (12th); 30 members
- Taught members stock trading, Organized monthly professional networking events, guest lectures with industry experts
- **Expert, PSN HackClub (School Club)** January 2020 - May 2024
- 60 members; A community of computer enthusiasts
- Practiced collaborative coding and created impactful programs to promote inclusivity, Organized Hackathons

ALGORITHMIC TRADING & FINANCE

PUBLISHED RESEARCH

Independent Researcher, Algorithmic Trading, IJSSER ([IJSSER: Research Paper](#))

Jan 2023 -Aug 2023

- Wrote and published a research paper on algorithmic trading titled "ALGORITHMIC TRADING: A COMPREHENSIVE REVIEW OF TECHNOLOGICAL ADVANCEMENTS AND MARKET IMPLICATIONS"

INTERNSHIPS

Winter Intern, Ram Commodities, Ghaziabad, India (<https://www.motilaloswalmf.com/>)

Dec 2022

- A Subbroker firm for National Stock Exchange under Motilal Oswal managing \$60 million for HNI's in Ghaziabad; Learnt about the derivatives market and algorithmic trading, Analyzed stocks to give recommendations for swing trading

ONLINE COURSES

Coding

- Modern HTML & CSS From The Beginning By Brad Traversy (21 hours) Aug 2020 - Dec 2020
- Build Android Apps with App Inventor 2 By Stone River eLearning (17 hours) Jan 2021 - March 2021
- 20 Web Projects With Vanilla JavaScript By Brad Traversy (16 hours) April 2021 - May 2021
- Python Mega Course: Learn Python, Build 20 Apps By Ardit Sulce (51.5 hours) July 2021 - Dec 2021

Finance

- The Complete Foundation Stock Trading course By Mohsen Hassan (9.5 hours) August 2020
- Advanced Stock Trading Course + Strategies By Mohsen Hassan (9.5 hours) September 2020
- Day Trading and Swing Trading Strategies for Stocks By Mohsen Hassan (3.5 hours) October 2020
- Live Stock Trading Course: Beginner to Pro By Mohsen Hassan (7.5 hours) November 2020
- The Complete Cryptocurrency Investment Course By Mohsen Hassan (12.5 hours) December 2020
- The Advanced Cryptocurrency Trading Course - With Strategies By Mohsen Hassan (6 hours) Jan 2021
- Complete Investing Course (Stocks, ETFs, Index/Mutual Funds) By Mohsen Hassan (11.5 hours) Feb 2021
- The Complete Foundation FOREX Trading Course By Mohsen Hassan (8.5 hours) March 2021

Algorithmic Trading & Programming

- Learn Ethical Hacking From Scratch By Zaid Sabih (16 hours) Dec 2022 - March 2023
- Algorithmic Trading: Backtest & Automate in Python By Mohsen Hassan (10 hours) Feb 2023 - June 2023
- Forex Algorithmic Trading Course: Code a Forex Robot! By Mohsen Hassan (11.5 hours) June 2023 - Aug 2023

COMMUNITY OUTREACH

- Spearheaded a Covid Vaccination Camp that provided free vaccination to 500 people in 2021
- Toy Drive to provide toys to low income children in 2017
- Tree Plantation Drive and awareness campaign that engaged 50 people and planted over 1000 trees in 2017,
- Walkathon for cancer patients in 2017, 2018.
- Bake sale to provide fans to low income workers in Delhi heat wave 2018
- 6 month extended awareness project on adoption, collecting funds for an animal NGO in Delhi 2016
- Carbon Footprint Offset and emission awareness campaign

Additional SPORTS

Golf May 2020 - Present

- City-level golfer with handicap of 14, Competed in the Shubhankar Sharma Junior Invitational City qualifier-3.

Horse Riding

October 2016 - March 2018

- District Level equestrian

Track & Field

January 2017 - Present

- Participated & Won in our school's annual Track & Field events (Sports Day)- High jump; 200, 400, 800 meters.

SKILLS

- Proficient in English, Hindi
 - Comfortable utilizing research tools such as Google Scholar and Noodle Tools
 - Public speaking and debate skills polished in the 2021 October MUN conference and the World Scholar's Cup.
 - Worked on 8 projects as a front-end developer from 2020.
 - Proficiency in front and back end Web Development using languages HTML, CSS, Javascript, SCSS, SASS
 - Proficiency in Python for Object Oriented Programming & Algorithmic Trading
 - Proficiency in Java for Desktop Applications
 - Have created algorithmic trading bots
 - Working with IoT devices for Smart Grid integration solutions to reduce energy wastage
 - Avid Reader
 - Gym Enthusiast
 - Ability to maintain composure and balance and perform high in environments of stress and pressure
 - Integrity, Consistency, Hardworking, strong willed
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