

# Aryaman Roongta

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## Education

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**Cornell University**, B.S. in Mechanical Engineering + ECE Minor – Ithaca, USA 2024 – 2028  
GPA: 3.45/4.00

**Woodstock School**, in IB Diploma – Mussoorie, India 2022 – 2024  
GPA: 4.0/4.0 (Valedictorian)

## Experience

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**Accumulator Segments Designer**, Cornell Racing FSAE – Ithaca, USA Feb 2025 – present

- Designed 543 V 125s1p battery pack capable of withstanding 40g acceleration in all directions.
- Packaging/structure: –10% mass, –20% footprint vs last year design.
- Laser-welded tabs (Ni-plated Cu): contact resistance  $\sim 8 \mu\Omega \rightarrow \sim 0.09 \mu\Omega$ ; secured \$40k welding sponsorship.
- BMS pogo-pin voltage taps design; High Voltage insulation/clearance & busbar compliance work.
- Fluency in machining aluminium using 3-axis mills & lathes. Advanced 3D printing experience with 6+ filaments.

**Racecar Technician Intern**, N1 Racing India – Mumbai, India May 2025 – Aug 2025

- Supported 4 touring cars: turbo installs, intercooler replacement/plumbing, coilovers & clutch replacement etc.
- Trackside: tyre-pressure & suspension setup iteration from driver feedback; scrutineering/paddock logistics.
- Introductory ECU tuning (spark/VE LUTs, O<sub>2</sub> trims) using Haltech NSP.
- Operating Mustang MD150 Chassis Dyno to collect performance data.
- Collaborated with senior race mechanics to diagnose mechanical issues and implement rapid, effective fixes under trackside conditions.

**Kart Maintenance Engineer**, Cornell Racing FSAE – Ithaca, NY Feb 2025 – present

- Restored non-running kart to reliable: advanced carb tuning/adjustments, tyres/hubs/bearings, ignition & fuel systems restoration.
- Responsible for kart operational safety and preventative maintenance

## Projects

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**F1 in Schools - Team Lead + Lead Car Engineer – Mumbai, India** Mar 2019 – May 2020

- Designed & manufactured miniature F1 in Schools cars using Autodesk Fusion + CFD via Autodesk Flow Design.
- Optimized designs through track testing and performance data collection of different prototypes.
- Effectively managed the focus, morale, task assignment, and timelines of a team of 6 to secure a top-five finish among 200+ teams in the Maharashtra region and qualified as the only rookie team from Western India for the Indian National Finals.
- Raised over 200,000 INR in sponsorships to cover over 50% of the team's expenditure.
- Mentored another team in 2023-2024, helping them win the Northern India Championships.

## Skills

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**Programming:** Proficient with Python, C, C++, HTML, CSS

**Manufacturing and Design:** Autodesk Inventor/Fusion, 3D Printing, Milling, Lathe, Laser Welding

**EV Safety:** HV Safety Trained, HV Design and Packaging

**Languages:** English, Hindi, French, Marwadi

## Hobbies

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- Mountain Biking, National Motorsport Athlete (Karting), Squash, Sim Racing, Metal Music, Tutoring Math