SANJEEV CHAUHAN

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EDUCATION

Duke University **May 2025 (expected)**
B.S. in Electrical and Computer Engineering and Computer Science | Innovation & Entrepreneurship certificate Durham, NC
- **GPA:** 4.00/4.00
- **Programs:** XPRIZE rainforest robotics team, Duke Robotics Mentorship, Aeroelasticity Research, Duke Quantitative analysis
- **Relevant Coursework:** Machine Learning, Linear Algebra, Modern Physics, Data Structures and Algorithms

South Carolina Governor's School for Science and Mathematics (SCGSSM) **May 2022**
Summa Cum Laude Hartsville, SC
- **GPA:** 3.915/4.0 | **SAT:** 1570/1600 (Math: 790, Reading: 780) | **ACT:** 35/36
- **Honors:** SCGSSM Robotics Award, FRC Design Award S.E. region, National Merit Finalist, National AP Scholar

WORK EXPERIENCE

Duke Aeroelasticity Lab | *Computational Fluid Dynamics Researcher* (Durham, NC) **May 2022 – Current**
- Conducted grad-level CFD research on transonic airflow over a wing, examining the little-explored area of transonic buffet
- Investigated use of Euler equations as a less computationally intensive alternative to Navier-Stokes equations

DeAP Learning Labs (deaplearning.com) | *Founder and CTO* **(**Durham, NC) **April 2023 – Current**
- Founded AI company that has prepared over 80,000 students for AP history exams with free educational chatbots

Chapel Headshots | *Founder and CEO* **(**Durham, NC) **Aug 2022 – Current**
- Founded Duke's premier professional headshot business | Directed marketing strategies and customer service relations.

FIRST Robotics Mentor | *FTC 327 and FTC 22534* **Jan 2023 – Current**
- Leveraged five years of FIRST robotics experience to mentor the top-ranked FTC team in SC
- Integrated odometry-based autonomous control and CNC manufacturing techniques to provide team members with education on industrial manufacturing and high precision control systems

Self-Driving Golf Cart Initiative | *Design / Mechanical Lead* **Jan 2022 – May 2022**
- Designed and constructed a fully autonomous self-driving golf cart using a modular system that creates an eco-friendly, on demand campus transportation fleet from old golfcarts and offers independence to disabled individuals
- $35,000 in grants from Google, SC Department of Education, and the GSSM Foundation | praise from Boston Dynamics
- Implemented linear actuators, LiDAR, Nvidia Jetsons, and stereolithographic cameras to enable autonomous drive by wire

University of South Carolina Advanced Research Computing Lab | *Deep Learning Researcher* **Jun 2021 – Aug 2021**
- Conducted an analysis of PyTorch / TensorFlow / MxNet deep learning frameworks on ImageNet / CIFAR10 / CIFAR100 datasets
- Revealed accuracy differences between Deep Learning frameworks, revealing a new research field for the USC ARC Lab
- Authored paper for South Carolina Junior Academy of Sciences (3rd place) / Presented oral presentation (2nd place)

STANFORD – SLAC research internship | *CFD and High Energy Particle Physics Researcher* **Jun 2023 – Aug 2023**

LEADERSHIP & EXTRACURRICULAR INVOLVEMENT

Duke Robotics Mentorship | *President* **Jan 2023 – Present**
- Headed and grew organization dedicated to delivering free, hands-on robotics and programming courses to four local middle schools, demonstrating exceptional management skills and commitment to educational outreach

SPARK! (SCGSSM) | *Voluntary Student Leader* **Sep 2020 – May 2022**
- Planned, managed, and taught interactive, engaging lessons in STEM subjects to over 80 middle schoolers from across SC
- Pioneered addition of two new lessons, managed student teams | led new effort to teach code to local community
- Taught and led lessons in robotics, Chinese, Latin, Math, US history, and spearheaded 8-week python course

Duke XPRIXE Robotics Team | *Rainforest Drone Team* **Aug 2022 – Present**
- Designed motor harness for drone and gel-based vibration-dampening system while auditing XPRIZE class (ECE 365)

SCGSSM Mindfulness Program | *Founder and President* **Jan 2021 – May 2022**
- Established afterschool mindfulness course in collaboration with school administration and certified yoga instructor
- Led biweekly meditations and assisted students in developing social/emotional tools for mental wellness, academic success

FIRST Robotics | *Team Captain (FTC 327) | Lead Driver, Fabrication Specialist (FRC 2815)* **Jan 2020 – Present**
- Founded a fabrication sub team and re-structured FRC 2815's mechanical workflow, introduced OnShape and maintained a complete CAD model of our competition robot, enabling precise part fabrication and allowing the team to reach the Palmetto regional quarterfinals, placing 14th of 63 teams from ten states | Headed drive team to win SCRAP 2021 regionals

Cross Country | *Assistant Coach, Team Captain, Varsity* ***Jun 2019 – May 2022***

SKILLS AND INTERESTS

- **Skills/Certifications:** Polish (fluent), Chinese (conversational), MATLAB, Python, Java, ANSYS fluent, SOLIDWORKS, SEO
- **Interests:** XC running, Cooking, Mountain Biking, rock climbing, Skiing, AI, 3D printing, CNC machining, CAD