SPARSH GOYAL

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EDUCATION

University of Southern California, Los Angeles, CA

May 2025

Bachelor of Science, Mechanical Engineering, Viterbi School of Engineering; Cumulative GPA: 3.55

Richmond American University, London, UK, Study Abroad

August 2022-December 2022

SKILLS & INTERESTS

- Languages: Fluent in English; Fluent in Hindi
- Technical: Java, SolidWorks, Microsoft Word, Microsoft Excel, Microsoft PowerPoint, MATLAB, Siemens NX, R Basics
- Interests: Robotics, Formula 1, Soccer, Entrepreneurship, Running: Cross-Country, Ethical Hacking, Family Business Society

WORK EXPERIENCE

Mechanical Engineering Intern, Bhaskar Venkatesh Products Pvt Ltd, India

April 2021-Present (Remote)

- Analyzed machine backup parts and reserve supplies, minimizing equipment downtime by 8% through optimized stock levels
- Conducted research on common causes of wear and tear of appliances like gears and bearings, to minimize maintenance expenses
- Collaborated with the operations manager to effectively engineer specialized equipment, ensuring optimal performance
- Incorporated practices such as Just-In-Time (JIT) inventory management while continuously monitoring manufacturing processes

Student Worker, Baum Family Maker Space, USC, Los Angeles, USA

September 2023-Present

- Instruct and facilitate comprehensive training sessions at BFMS, instructing students on the safe and proficient use of power tools
- Lead sessions focused on tools such as handheld drills, band saws for wood cutting, orbital sanders, and Dremel rotary tools

Mechanical Engineering and Business Management Intern, Anant Products, India

March 2022-May 2022

- Coordinated with the business team to automate manufacturing, formulated budgeting strategies for labor-efficient production
- Introduced eco-conscious measures, encompassing the assessment and incorporation of sustainable materials and practices
- Implemented cost-saving measures like integrating efficient machinery and streamlining supply chain to reduce costs by 10%
- Incorporated energy-efficient practices in the manufacturing process, resulting in a ~15% decrease in energy consumption

ACADEMIC PROJECTS

USC Formula SAE Racing, Student Member, USC

January 2023-Present

- Contributed to constructing a Formula-based competition vehicle chassis, honing project management and teamwork skills
- Designed, analyzed and fabricated hardware parts used in car assembly such as bushings, washers, and plates
- Researched and established an understanding of suspension and other wheel efficiency aspects such as camber, toe, and caster

Rover Design Project (ENGR 7B)-Team Member, University of California, Irvine

January 2022-March 2022

- Built a 4-wheel vehicle in collaboration, utilizing polycarbonate and components such as Pixy Cam, Arduino, and various sensors
- Designed and manufactured components with precise specifications and customized them using laser cutting and 3D printing

Rover Design Project (ENGR 7A)- Team Member, University of California, Irvine

September 2021-December 2021

- Collaborated with a team of engineers to design and manufacture a rover capable of navigating a complex obstacle course
- Engaged in routine design evaluations to guarantee the achievement of project milestones, adhering to budgetary considerations

LEADERSHIP AND INVOLVEMENT

Professional Chair, Theta Tau- Professional Engineering Society, USC

August 2023-Present

- Led initiatives to boost technical knowledge among engineering students through workshops, industry visits, and guest lectures
- Supervised projects applying mechanical engineering principles, including prototyping and hands-on learning experiences

Student Council House Vise-Captain (House: Pravir), The Sanskaar Valley School, Bhopal January 2021-December 2021

- Collaboratively orchestrated school-wide initiatives aiming to enhance school spirit and foster community engagement
- Instituted and managed a peer mentoring program to support underclassmen in their academic pursuits and career aspirations

Team Leader-Senior High Team, TechRobo Centre, Bhopal, India

June 2019-June 202

- Lead a team of four at the senior level of the World Robot Olympiad/ WRO and used EV3 software to prototype a moving rover
- · Oversaw, fabricated, and modeled an automated rover capable of lifting and dropping pieces at specific stops on a path

VOLUNTEER EXPERIENCE

Water Drop LA, USC

January 2023-Present

Assisting the organization in achieving its goal of giving 20000+ gallons of clean and safe drinking water to those in need

Madhya Pradesh Congress Committee, Bhopal, India

March 2020-March 2021

Made available 25,000 meals per day for the homeless during the COVID-19 pandemic continuously for a year