DAKSH GARG

+1 (646) 409-5417 | dg3375@columbia.edu | 400 W 128th St, New York, NY10027 | linkedin.com/in/daksh-garg-b64507214

EDUCATION

Columbia University, *New York* — Expected Dec 2024
MSc in Mechanical Engineering; Specialization in Robotics and Control
- Coursework: Robotics Studio, Robot Kinematics, Digital Manufacturing, Aerodynamics, Fluid Mechanics, Control Theory, Data Science, Mechatronics and Embedded Microcomputer Control

Manipal University Jaipur, *Rajasthan, India* — Nov 2022
B.Tech in Mechatronics Engineering, CGPA: 8.06/10
- Coursework: Technical Communication, Thermodynamics, Solid Mechanics, Material Strength, Analog & Digital System Design, Automotive Safety System, Fluid Mechanics, Fundamentals of Automobile, Pneumatics & Hydraulic Systems, Artificial Intelligence, Robotic Systems, Instrumentation, Basic Electrical & Electronics, Signals & Systems, Environmental Sciences, Value and Ethics

PROJECTS

DUNKS Coffee Delivery Robot, *Columbia University* — Sep 2023
- Designed a low cost, low footprint robot arm (DUNKS) with 4 revolute and 1 prismatic joint to improve efficiency of transiting well-made coffee from preparation counter to delivery area.
- Created a design; reduces human labor cost by 20%, wait time of customers and increases overall profits.

Best time to visit London (Data Science Approach), *Columbia University* — Sep 2023
- Sampled a Data set included 8 parameters including Sunshine,Max and Min Temperature etc.
- Applied linear regression amd artificial intelligence techniques to solve problem.

Pothole Detection using OpenCV, *IEI Mechatronics Club* — Oct 2022 - Dec 2022
- Aimed at tackling growing rate of accident across India due to unmarked potholes; it functions as a monitoring drone to detect 95% of potholes on a path and uses cloud to send information to concerned authorities.
- Focused on creating initial POC, where 5 components were based on required speed, weight category and other parameters.
- Collaborated OpenCV to do artificial intelligence calculations and drones were used to map area of proximately 10000 sq.ft.

Domestic Motor Timer, *Manipal University Jaipur* — Oct 2021 - Dec 2021
- Developed timer for domestic motors operating PLC turns motor ON and OFF at particular times based on water timings of a particular locality.
- Managed programmable logic,actuators and sensors assembly to design array of 4 working parts.

EXPERIENCE

Shriram Pistons and Rings Ltd, *Ghaziabad, India* — Jan 2022 - Jun 2022
Research Engineering Intern
- Collaborated in research activities in R&D Department on designs of Pistons and Rings with 2 other interns.
- Drew pistons and rings ensuring 35% less material wastage with optimum functioning through better material usage.

3A Yantra Inc, *Ghaziabad, India* — Jun 2021 - Jul 2021
Design Engineering Intern
- Programmed CNC machines to develop various Special purpose machines for clients
- Drafted and verified drawing layouts, and supervised machine maintenance to ensure smooth functioning resulting in 30% better efficiency.

ASP Sealing Products Ltd., *New Delhi, India* — Jun 2020 - Jul 2020
Design Engineering Intern
- Devised and documented drawing layouts and designed sealing products on AutoCAD and Revit.
- Reviewed blueprints for onsite productivity and implemented construction accordingly.
- Instructed by Scholars in Mechanical and Electrical engineering for construction of design.

SKILLS

Programming: C, C++, Python
Operating Systems: Windows, MacOS, Linux
Design Tools: CREO Parametric, AutoCAD, Fusion360, Solidworks, CODEsys, MATLAB, Simulink, Labview
Microsoft Office Package: Word, Excel, Powerpoint

AWARDS

- Highest scorer in batch in Technical Communication (2nd Semester), Engineering Thermodynamics (2nd Semester), Organization and Management (5th Semester).
- Gold Medalist in High School for overall proficiency.