

ADITYA SINGH

Electrical Engineer

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SUMMARY

I had build a strong foundation in areas such as circuit analysis, digital systems, control systems and electrical machines. My coursework and hands-on experience through labs have deepened my passion for designing and analyzing electrical systems. I have also worked on collaborative projects focused on renewable energy and automation, enhancing my problem-solving skills and teamwork.

TECHNICAL SKILLS

Languages: Python, Matlab/Simulink, SQL, JavaScript

Frameworks: Selenium/Selenide, Playwright, RestAssured, TestNG, Cucumber

Libraries: Numpy, Panda, PYLEECAN, ETAP

PROJECTS

Traction Motor Design

Aug. 2024 – ongoing

About - it's a big network of electrical machines, power electronics and control system.

Amethi, India

- Creating motor framework (including motor requirement, motor type, designing of stator, rotor, control system)
- Currently working with Computer Aided Design (CAD) software like (SolidWorks, AutoCAD and Inventor) for creating 2D and 3D models of motor components and assemblies
- Using finite Element Analysis (FEA) software like (ANSYS Maxwell, JMAG) for simulating and analyzing magnetic, thermal and structural properties of motor component
- using Control system design software like (Matlab/simulink, PSIM and Typhoon HIL) for designing and simulating motor control system

Image Processing

June 2024 - July 2024

Extracting required Images from a given database using Matlab/Simulink

Varanasi, India

- Used Image Acquisition (loading an input image/video frame containing the image)
- Pre-Processing the image (Converting the image to grayscale to reduce complexity, Applying noise filtering to remove any noise that could interfere with image detection.)
- Used Edge detection (to highlight edges of the images), used Morphological operations to refine the edges and isolate the image.
- Used Character Segmentation (binarizing the image, separating each character by using boundary boxes for recognition)
- Used Optical Character Recognition (OCR) techniques to identify the individual characters on image and then show the image by combining each character.

EDUCATION

Rajiv Gandhi Institute of Petroleum Technology

Amethi, India

Bachelor of Technology, Department of Electrical and Electronics Engineering

2022 - 2026

CERTIFICATIONS

Foundation of Cybersecurity - Google

Issued Feb 2024

Image processing onramp - Matlab

issued Oct 2024