Pratik Thapa   www.pratikthapa.com

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Objective

Self-taught programmer proficient in object-oriented programming, algorithm development and fundamental programming concepts. Website portfolio showcases practical skills and commitment to software development. Eager to contribute, collaborate and excel.

EDUCATION

North Carolina State University, Raleigh, NC

Bachelor of Computer Science**,** anticipated May 2025   **GPA: 3.90/4.00**

Courses: SW Dev Fundamentals, Data Structures, Operating System, Into to C/C++

Wake Technical Community College, Raleigh, NC

Associate of Engineering, May 2023   **GPA: 3.90/4.00**

SKILLS

Languages:	Java, Python, C, R, C++, JavaScript
Web Technology:	HTML, CSS, Flask, Node.js, EJS, AJAX, jquery
Libraries:	OpenCV, TensorFlow, PyTorch, Keras, Numpy, Pandas, BeautifulScoup, Pygames, Express, chart.js
Operating System:	Linux, Windows
Tools:	JupyterLab, Eclipse, SQlite, Postgres, Pycharm, Jenkins, Emacs, GIT

WORK EXPERIENCE

Undergraduate Research on Self-Driving Cars, North Carolina State University   **August 2023 – Current**

- Applied Lane Detection Algorithm using OpenCV library.
- Assembled hardware components (Cameras, Motors, Circuits, LiDAR)
- Utilized ROS2 and Python to develop a 1/16 scale self-driving car that can stay within lanes, turn and detect stop signs.
- Working on Imitation Learning using CNN models to avoid using hard coded lane detection algorithms.
- Employed Nvidia Orin and CUDA for high-performance computing tasks.

PROJECTS

Face and Object Detection Rover:

- Developed an autonomous rover with face and object detection using computer vision.
- Used python with OpenCV and Keras libraries to train the CNN models to detect the object.

Link: github.com/PratikThapa24/Object_face_detection_rover

Spotify-Playlist:

- Developed a python program to scrape the top 100 songs from the Billboard based on user inputs.
- Used libraries such as BeautifulSoup, Spotipy and pygames to develop well-coordinated GUI programs.

Link: github.com/PratikThapa24/make-spotify-playlist

LetsStudyTogether:

- Developed a full-stack website that helps users, specifically students, log their study hours and add todos by creating and registering an account.
- Implemented features to connect with friends and study together utilizing PostgreSQL, Express.js.

Link: https://github.com/PratikThapa24/LetsStudyTogether