Nalin Tiwary

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EDUCATION

University of Illinois-Urbana Champaign Aug. 2021 – May. 2025
Bachelor of Science in Computer Science Champaign, IL

- **Relevant Coursework**: Data Structures and Algorithms, Software Design, Calculus
- **Clubs**: ACM-ICPC and Illini Chess

PROJECTS

GitHub (*@NalinTiwary*)

Facial Emotion Detection

- Created a Deep Learning model to identify a person's mood based on their facial expressions
- Used **TensorFlow** to train and implement **Convolutional Neural Networks**
- Implemented image processing using **dlib** and **cv2** on live video obtained through the user's webcam

Currency Strength Evaluation

- Studied the correlation between the relative value of a country's currency and its relative value of trade using **R**
- Used data processing and modeling techniques like **Ensemble trees, Principal Component Analysis, Multi-Variable linear regression** to create correlation constant between variance in a currency's value and the country's trade strength

Self-Balancing Robot

- Created a Self-Balancing Robot from scratch using **Raspberry Pi** and Python
- Used **RPi.GPIO** to interact with servo-motors through Raspberry Pi
- Coded a Physics engine to make quick minute adjustments to support the inverted pendulum weight distribution of the robot

COMPETITIONS

Codechef Dec. 2019 – Present
Competitive Programming (@nalin2409)

- Reached **National Rank 69** in India in a pool of over 20,000
- Reached a ELO rating of **1923** to be in the **top 2%** of all users on the website
- **Highlights**: October Lunchtime 2020(Rank 64 out of 6000), March Long Challenge 2020(Rank 155 out of 14000)

Google KickStart May 2020
Competitive Programming

- **Rank 831** out of 15,000 participants in Google KickStart Round C

Tech Competitions May 2017 – Oct. 2021
Inter-school competitions Gurgaon, Haryana

- **1st** place at DyanamiX coding competition, EXUN hackathon, MegaByte coding competition
- **3rd** HackED Hackathon, Ramjas Hackthon, Vasant Valley Tech Competition

SKILLS

Languages : Java, C++, Python, R, JavaScript(Node.js), C
Tools : TensorFlow, Numpy, Scala, NLTK, PyTorch, Beautiful Soup, Selenium, PyGame, dlib, cv2