# **Nalin Tiwary**

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### **EDUCATION**

# **University of Illinois-Urbana Champaign**

Bachelor of Science in Computer Science

Aug. 2021 – May. 2025

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

Inter-school competitions

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

#### **Tech Competitions**

May 2017 - Oct. 2021

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