

# DIYA BHATNAGAR

ARTIFICIAL INTELLIGENCE AND DATA ENGINEERING UNDERGRADUATE,  
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## VISION STATEMENT

Passionate about leveraging technology and innovation to solve real-world problems and drive meaningful impact, Diya Bhatnagar is a multit talented undergraduate at one of India's top institutes, with a strong academic record and a balance of logical thinking and creative vision. Has proven leadership experience coupled with the ability to thrive in collaborative, team-oriented environments.

## EDUCATION

BACHELORS OF TECHNOLOGY IN ARTIFICIAL INTELLIGENCE AND DATA ENGINEERING

(Expected in 2027)

CURRENT CGPA 8.27

## ACHIEVEMENTS

- **Co-author of a research paper** published in the European Conference on Cyber Warfare and Security (ECCWS).
- **Top 3 National Finalist - AI for Good Idea Challenge** in Microsoft EduDay; selected to present the project to **Satya Nadella, Chairman & CEO of Microsoft**.
- Consistently ranked in the **Top 3 academically** throughout school years.
- Appointed **Head Girl**, demonstrating strong leadership and organizational skills.
- **Representative of Dance Club of college**.

## PUBLISHED PAPERS

- **Kumar, S., Yim, M., Agarwal, A., Garg, A., and Bhatnagar, D., 2025. Cyber Threats to Nuclear Safety: Game Theory Strategies for Enhanced Deterrence.** Accepted and presented at the 24th European Conference on Cyber Warfare and Security (ECCWS)
  - Focused on game theoretic analysis of cyberwarfare and reinforcement learning methods to find optimal posture of state nations.
  - Utilized Google Collab, python for model development, simulation and analysis.

## WORK EXPERIENCE

### RESEARCH INTERN AND CO-AUTHOR : TEXAS A&M UNIVERSITY

(2024)

- Researched on limitations of traditional deterrence strategies, provided insights from game-theoretic analysis of nuclear systems
- Simulated a reinforcement learning model aimed at finding the optimal nuclear deterrence strategy for nation states.
- Co-authored the research paper on Game Theory Strategies for Enhanced Deterrence under Prof. Shreyas Kumar, at Department of Computer Science and Engineering

### SALES AND LEAD GENERATION TRAINEE: HAEYWA LAUNCHPAD PROGRAM

(2025)

- Completed training with **Dotnova.ai** in their Haeywa Launchpad Program
- Attended real-life demos and business meetings to support the conversion of leads into business opportunities
- Received training in sales by shadowing HR Team and entrepreneurship mentorship from founder of Haeywa

## PROJECTS

### API-INTEGRATED AI SOLUTION FOR AUTOMATED INVOICE VALIDATION

(Currently ongoing)

- Developing a Bill Verification System by integrating Amazon Rekognition's Text Detection API
- Customised pre-trained AI model, designed and implemented core logic to combine text extraction and AI-powered analysis, enabling authenticity verification.
- Working on an efficient solution for detecting fraudulent bills

### SLEEP APNEA DETECTION SYSTEM

(2024)

- Designed a screening model using Arduino, pulse oximeter(MAX30100), accelerometer(MPU6050), which detects heartrate, oxygen levels and movement to correctly diagnose sleep apnea symptoms.
- Developed a real-time application using Flutter and Dart to collect sensor data, display it dynamically, and alert users upon detecting sleep apnea symptoms

## PROFESSIONAL SKILLS

Python, C++ **Data Structures & Algorithms** Machine Learning **Quick and Motivated Learner** Strong Analytical and Problem Solving Skills

### COMPLETED COURSEWORK

Introduction to Computing and Data Structures, Mathematical Foundation to AI and DE, Machine Learning, Data Structures and Algorithm, Differentials, Foundation of Computer Systems, Optimization Methods with Applications, Control Engineering, Linear Algebra, Integral Transforms and Special Function, Economics

### CO-CURRICULAR: REPRESENTATIVE OF D'CYPHER (DANCE CLUB OF IIT ROPAR)

Led 15 college dance teams, organizing inter-college dance competitions across North India. Managed team administration, including budget management, vendor negotiation, proposal writing and liaising with dance artists nationwide. Also helped oversee the establishment of a dedicated dance studio during tenure.

### CO-CURRICULAR: HEAD GIRL OF SCHOOL

Served as the official student representative and leader of the school council. Represented the school at international platforms, oversaw the execution of major school events, acted as a bridge between the student body and administration