

# AMOGH GUPTA

☎ +91 9008116233 ✉ amoghwork03@gmail.com 🔗 [linkedin.com/in/connectamogh](https://www.linkedin.com/in/connectamogh) 🐙 [FieryDeveloper](#)

## Education

<b>Indian Institute of Information Technology Pune</b> <i>Honors in Machine Learning (1st in Batch)</i> <b>Coursework: Artificial Intelligence, Machine Learning, Computer Vision</b>	<b>Aug 2023 – June 2025</b> <i>CGPA:10.00</i>
<b>Indian Institute of Information Technology Pune</b> <i>Bachelor of Technology in Computer Science Engineering (3rd in Batch)</i> <b>Coursework: Artificial Intelligence, Machine Learning, Data Structures, OOPs</b>	<b>Aug 2021 – June 2025</b> <i>CGPA:9.02</i>

## Work Experience

<b>IIT Indore</b> <i>Research Intern- Natural Language Processing</i> <ul style="list-style-type: none"><li>* Working in the domain of <b>Natural language processing</b>, the current project is based on obtaining crucial information from disaster tweets using <b>text summarization</b>.</li></ul>	<b>Jan 2024 – Present</b> <i>Pune, India</i>
<b>RCI-Defence Research and Development Organisation (DRDO)</b> <i>Machine Learning Intern</i> <ul style="list-style-type: none"><li>* Worked in a blend of <b>Machine Learning</b> and <b>Cyber Security</b>. Studied about tools like Splunk and Kafka.</li><li>* Performed <b>Log Analysis</b> and <b>Anomaly Detection</b>, worked on over a million logs and reduced them to hundreds of outliers.</li><li>* Used Tensorflow for algorithms like One Class SVM, KMeans and Isolated Forests. Developed a web application using HTML,CSS,Js, BootStrap and Flask.</li></ul>	<b>July 2023 – Aug 2023</b> <i>Hyderabad, India</i>
<b>Jio Platforms Limited</b> <i>Artificial Intelligence Intern</i> <ul style="list-style-type: none"><li>* Worked on a project '<b>Improving Operations through AI</b>' for the Data Analytics Department</li><li>* Worked on recommendation algorithms like <b>Apriori</b></li><li>* Developed a web application that was further presented to showcase the overview of this feature.</li></ul>	<b>May 2023 – July 2023</b> <i>Mumbai, India</i>

## Projects

<b>CareerVaani</b>   <i>HTML, CSS, Js, BootStrap, NLP, Supervised Learning, API, MongoDB</i> <a href="#">Link</a> <ul style="list-style-type: none"><li>· AI-based Career Counselling application for high school students.Career prediction using questionnaires based on supervised algorithms and sentiment analysis.</li></ul>	<b>Aug 2023 – Aug 2023</b>
---	----------------------------

## Publication

<b>1) Animal Intrusion Detection using Deep Learning Techniques</b> <ul style="list-style-type: none"><li>· Used Transfer Learning models like <b>ResNet50</b> and <b>EfficientNetB7</b> for animal classification. Applied it on a Dataset with 10 classes and over 25000 Images, achieving 98.52% accuracy. This paper aims to introduce a novel idea regarding <b>safety of humans</b> in residential areas.</li></ul>	<b>June 2023- July 2023</b>
<b>2) Transfer Learning Approach for Medicinal Plant Classification</b> <ul style="list-style-type: none"><li>· Used more than 7 transfer learning models to beat the benchmark accuracy of a Bangladesh Medicinal leaves dataset. The purpose of this paper is to spread awareness about the benefits of medicinal plants. Achieved 98.1% accuracy.</li></ul>	<b>Aug 2023- Sep 2023</b>
<b>3) An efficient Alzheimer's Disease Diagnosis with tuned Transfer Learning Models</b> <ul style="list-style-type: none"><li>· Applied deep learning techniques using a large dataset of high-quality brain MRI images that include people with Alzheimer's disease and cognitively normal patients. Achieved benchmark accuracy of 97.42%.</li></ul>	<b>Sep 2023- Oct 2023</b>
<b>4) Traffic Sign Sensing: A Deep Learning Approach for Enhanced Road Safety</b> <ul style="list-style-type: none"><li>· Implemented state-of-the-art object detection models like YOLOv8 and YOLO-NAS for Road sign detection for road safety. Achieved mAP value of 95.72%.</li></ul>	<b>Nov 2023- Dec 2023</b>
<b>5) Fire Safety Equipment Detection Based on YOLO Algorithms of Deep Learning</b> <ul style="list-style-type: none"><li>· Implemented State-of-the-Art Object Detection Models: Developed and deployed advanced deep learning models including YOLOv3 and YOLOv5 for fire safety equipment detection.</li></ul>	<b>Nov 2023- Dec 2023</b>

- Achieved Exceptional Performance: Attained a remarkable mean Average Precision (mAP) score of **93.8%** using YOLOv3, surpassing industry benchmarks and ensuring robust fire safety measures.
- 6) **Detection of fall armyworm in field crops based on YOLO** **Dec 2023- Jan 2024**
- Implemented Deep Learning Solutions for Crop Safety: Utilized YOLOv8 models to detect the fall armyworm pest, a significant threat to crop growth and food security in India.
  - Achieved Exceptional Precision: Attained impressive mean Average Precision (mAP) scores of **78.6%**, **80.6%**, and **39.4%** using YOLOv8l, YOLOv8m, and YOLOv8n respectively, with the highest precision of **89.5%** achieved by YOLOv8n.
- 7) **Revolutionizing Pothole Surveillance using Advanced Computer Vision** **Dec 2023- Jan 2024**
- Utilized YOLOv8 Models for Pothole Detection: Implemented YOLOv8n, YOLOv8m, and YOLOv8x models for pothole detection, contributing to road safety measures and infrastructure maintenance.
  - Achieved High Precision and Recall: Demonstrated the effectiveness of the YOLOv8 models in identifying potholes across diverse conditions, with precision ranging from **0.859** to **0.90** and recall ranging from **0.764** to **0.848**.

## Technical Skills

---

**Technologies Used To:** Python, C/C++, TensorFlow, Pytorch, Deep Learning, Computer Vision, NLP, Machine Learning, SQL

**Familiar with:** HTML5, CSS, JavaScript, Bootstrap, JQuery, NodeJS, MongoDB, ExpressJS, Flask, Java

**Extra-Curricular:** Marketing, Entrepreneurship, Team Management, Communication

## Volunteering Experience

---

- \* Global Impact Through College Fest Organization: Spearheaded the organization of numerous festivals in collaboration with the Entrepreneurship Cell (E-Cell) at my college, attracting over **1000 students** from **11 countries** worldwide.
- \* Community Service Amidst Crisis: Played a pivotal role in the **vaccination drive** within my locality during the COVID-19 pandemic, administering **over 20,000 vaccinations**. This endeavour not only safeguarded the health and well-being of countless individuals but also contributed significantly to curbing the spread of the virus, underscoring the importance of collective action in combating public health crises.
- \* Leadership in Intellectual Pursuits: Served as the **Head of Knightmares**, the Chess Club at IIIT Pune. Additionally, actively participated in Model United Nations conferences and workshops during high school, honing diplomatic skills and fostering a passion for global affairs, thus laying the foundation for future leadership endeavours.