

# PIXEL PATROLLERS



# ABOUT US

**PIXEL PATROLLERS: AI EYES ON EVERY PIXEL.  
PATROLLING TO PROTECT YOUR VIRTUAL  
REALM.**

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# OUR PROJECT

As we explored the growing world of the internet, we saw that with its power came serious problems—cyberbullying, deepfakes, and harmful content spreading everywhere.

**This made us think—what if we could stop this?**

We are Pixel Patrollers, a team of four B.Tech students using AI to detect cyberbullying, hate speech, and deepfake content in text, images.

Our goal? To make the internet a safer, friendlier place by helping platforms like Instagram stop online threats before they spread.



# OUR VISION

**Pixel Patrollers** is an AI-powered tool that helps detect cyberbullying and deepfake content, making online spaces safer and more trustworthy. Users can upload text to identify harmful or abusive language, preventing online harassment before it spreads. With AI actively patrolling every pixel, it provides an extra layer of protection, making the digital world safer and more reliable.



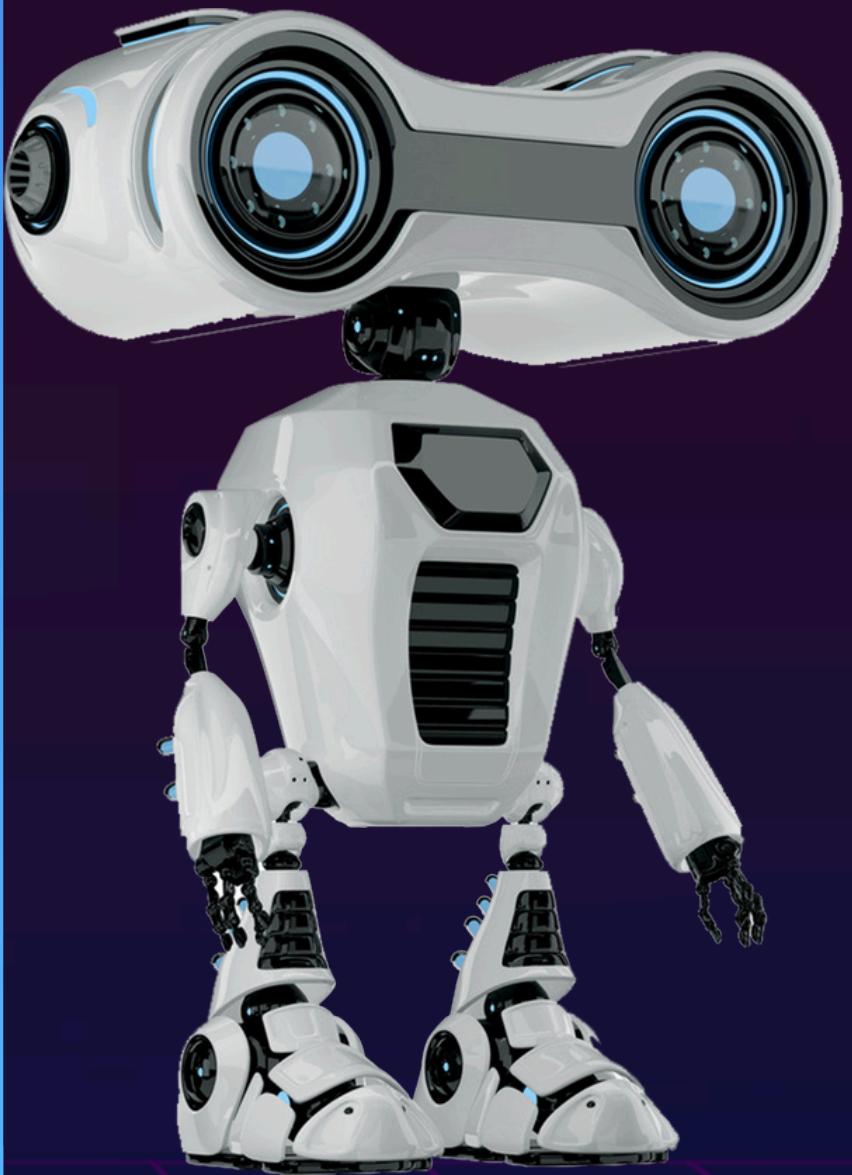
# HOW PIXEL PATROLLERS FITS INTO EMERGING TECHNOLOGIES

Pixel Patrollers is an AI-powered solution for digital safety, designed to protect people from online threats. It uses Artificial Intelligence (AI), Machine Learning (ML), and Computer Vision to detect cyberbullying and deepfake content.



# TECH STACKS USED

- PYTHON
- MACHINE LEARNING
- DEEP LEARNING
- TENSORFLOW, SCIKIT-LEARN
- FLASK
- HTML
- CSS
- BOOTSTRAP
- JAVASCRIPT



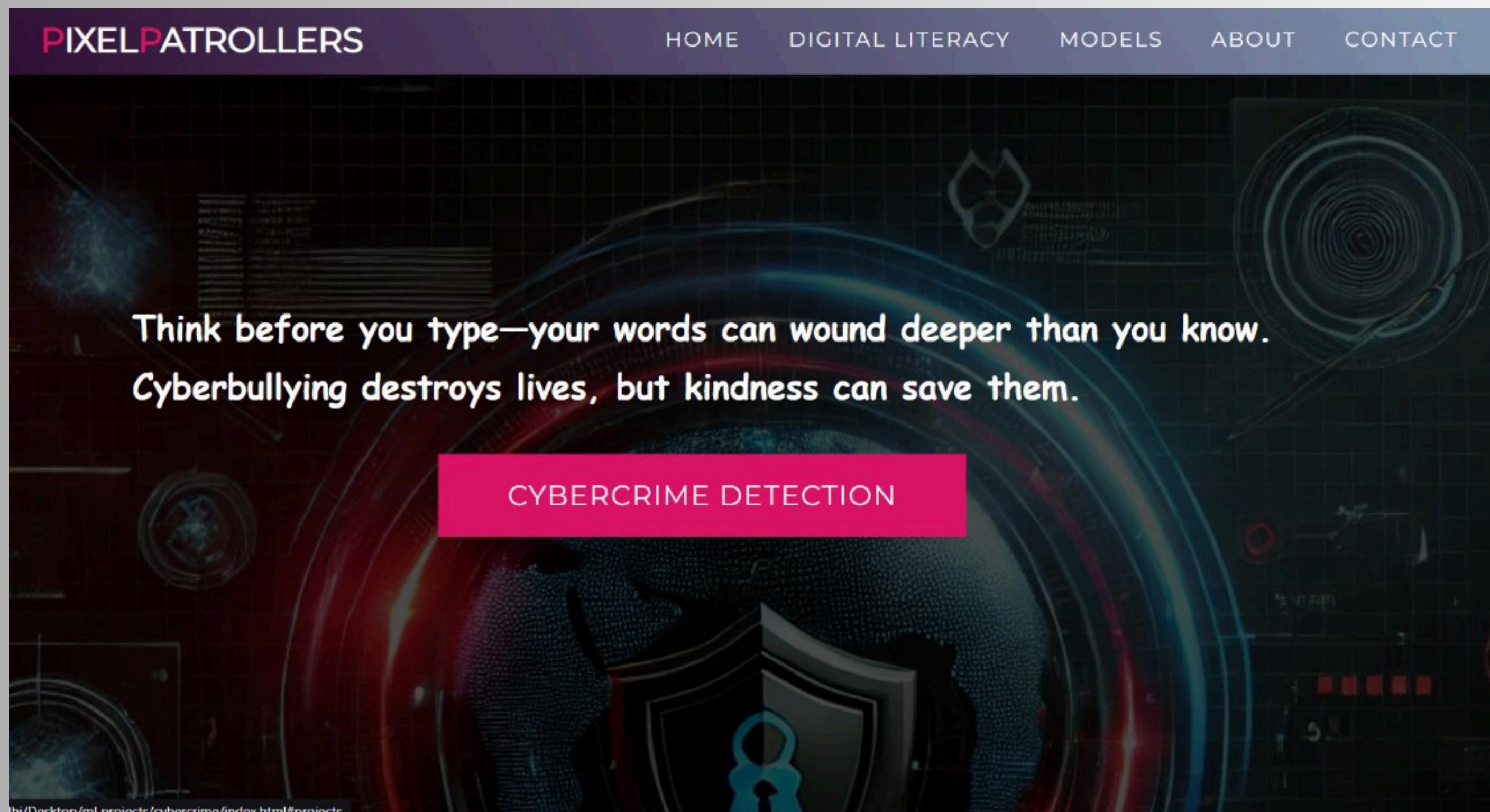
# OUR WEBSITE

PIXELPATROLLERS

HOME DIGITAL LITERACY MODELS ABOUT CONTACT

Think before you type—your words can wound deeper than you know.  
Cyberbullying destroys lives, but kindness can save them.

CYBERCRIME DETECTION



VIDEO LINK: [Demo](#)

PROJECT LINK: [Pixel Patrollers](#)

# HOME PAGE

PIXELPATROLLERS

HOME DIGITAL LITERACY SERVICES ABOUT CONTACT

## DIGITAL LITERACY

Digital literacy is the shield against cybercrime, empowering individuals to detect threats and navigate the digital world safely. In an era of rising cyberattacks, awareness of phishing, malware, and data breaches is the key to safeguarding personal information. Strong passwords, secure browsing, and two-factor authentication are not just practices but essential defenses. A cyber-aware society is a safer society—where knowledge becomes the best weapon against digital threats.

### SELF SAFETY

Enable Two-Factor Authentication (2FA) and OTP. Activate 2FA on your accounts to add an extra layer of security.

### SOFTWARE SECURITY

Install Antivirus Software: Protect your devices from malware, viruses, and ransomware with trusted antivirus software.

### NATIONAL PORTAL HELP

National Portal: Report crimes like cyberbullying, and child sexual abuse material (CSAM) via the [National Cyber Crime Reporting Portal](#).

PIXELPATROLLERS

HOME DIGITAL LITERACY SERVICES ABOUT CONTACT

## CYBERCRIME DETECTION

### Deepfake Detection

Unmasking deception in the digital age—deepfake detection is not just technology, but a shield against misinformation and digital manipulation.

Our advanced model detects deepfake-generated images with high accuracy, helping to unveil digital forgeries in real time. By identifying manipulated content, we prevent the spread of misinformation and protect individuals from cyber threats. This technology strengthens cybersecurity efforts, ensuring a safer and more trustworthy digital space.

INITIATE CYBER SCAN



### Cyberbullying Detection

Cyberbullying leaves invisible scars—let's choose kindness, stand against online hate, and make the digital world a safer place for all.

Our model detects hate speech and offensive content in both text and image formats, ensuring a safer digital environment. By identifying harmful content in real time, it helps prevent cyberbullying and online harassment. This technology aids in the fight against cybercrime, promoting responsible and respectful online interactions.



INITIATE CYBER SCAN



## ABOUT US

### The Firewall Force

We are four B.Tech students leveraging Machine Learning to combat online threats like hate speech, cyberbullying, and deepfake manipulation in audio, text, and images. Our mission is to create a safer digital space with advanced detection tools that empower users and promote responsible AI use.

# OUR SERVICES

## DEEPCODE IMAGE DETECTOR

Choose file

**INITIATE CYBER SCAN**

Faces detected: 2



Face 1: Real

Face 2: Real

## CYBERBULLYING DETECTION

Enter text here...

**INITIATE CYBER SCAN**

Choose File

**INITIATE CYBER SCAN**

# DEEPCODE IMAGE DETECTION

Choose file **image\_two\_ppl.jpg**

**INITIATE CYBER SCAN**

Faces detected: 2



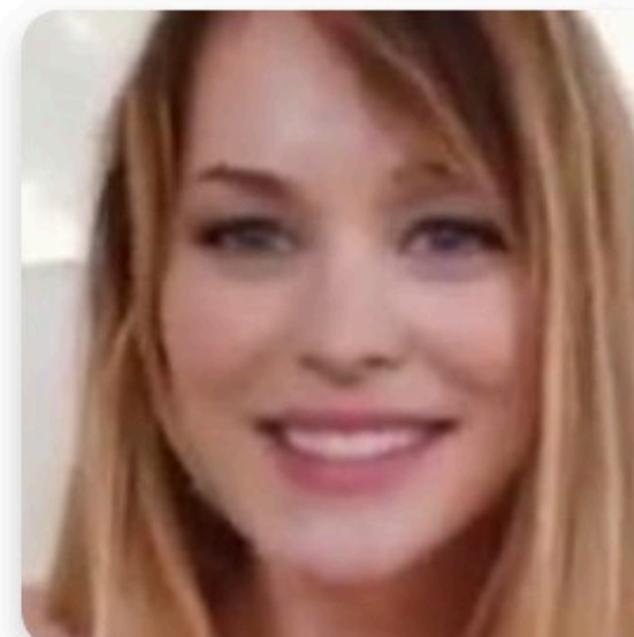
Face 1: Real

Face 2: Real

Choose file **deepfake\_image1.jpg**

**INITIATE CYBER SCAN**

Faces detected: 1



Face 1: Deepfake

# CYBERBULLYING DETECTION

## TEXT

KILL YOURSELF

Analyzed Text:  
KILL YOURSELF

Prediction:  
Bullying

Cyberbullying Detection

Analyzed Text:  
Cyberbullying Detection

Prediction:  
Non-Bullying

## IMAGE

No file chosen

Uploaded Image:

imgflip.com

Prediction:  
Non-Bullying

No file chosen

Uploaded Image:

NOTHING INSPIRES THE WORDS: FUCK OFF, LIKE SOMEONE ASKING ME TO WATCH MY LANGUAGE.

BLUNTCARD

Prediction:  
Bullying

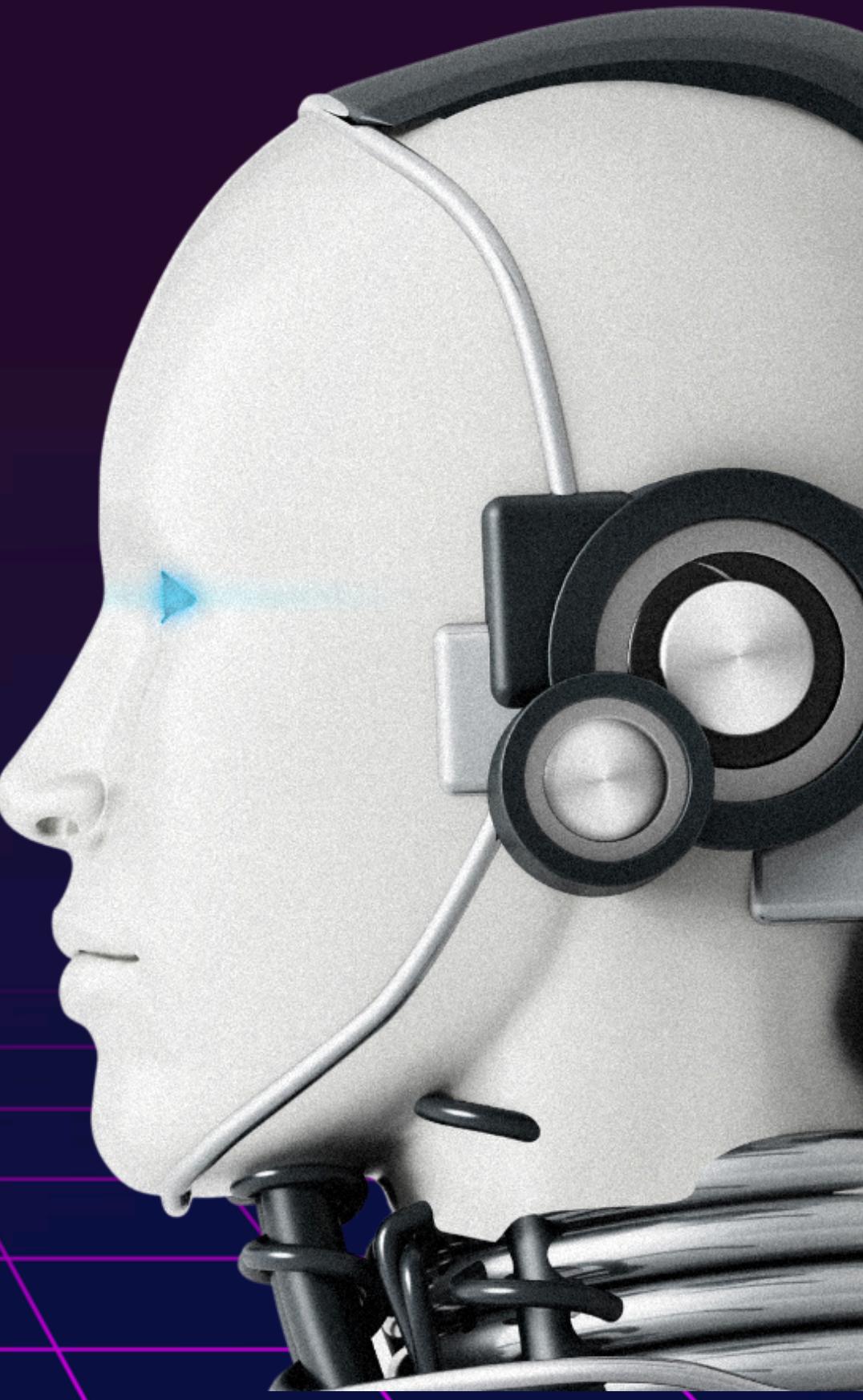
# CHALLENGES WE FACED

- Many websites restricted access to datasets due to cyber policies, making it difficult to gather high-quality training data.
- The cyberbullying detection model required handling noisy and unstructured text data, while deepfake detection needed high processing power due to the difficulty in distinguishing real and fake images.
- Training AI models required significant computing power, but free resources were limited.
- Since deepfakes are highly realistic, the model struggled to classify them correctly.
- Deploying the AI models on public hosting was difficult due to compatibility issues with TensorFlow, Intel, and Python versions.



# OUR USP

- **AI-Powered Detection:** Uses smart technology to find cyberbullying and fake images.
- **Simple & User-Friendly:** Easy for anyone to use with a clean and responsive design.
- **Fast & Secure:** Quickly analyzes data while keeping user information private.
- **Business Integration:** Companies and platforms can add this tool to their systems.
- **Works on Any Device:** Runs smoothly on both web and mobile.



# BUSSINESS IDEA

**Pixel Patrollers can help social media platforms, businesses, schools, and online communities keep their spaces safe. Ways to earn money include:**

- **Subscription Plans:** Offer paid access for businesses to use AI detection on their platforms.
- **Partnerships:** Work with social media companies and schools to help them prevent online harm.
- **Advertisements:** Show small ads for free users to support the platform.
- **Custom AI Services:** Create special AI solutions for companies needing extra protection.

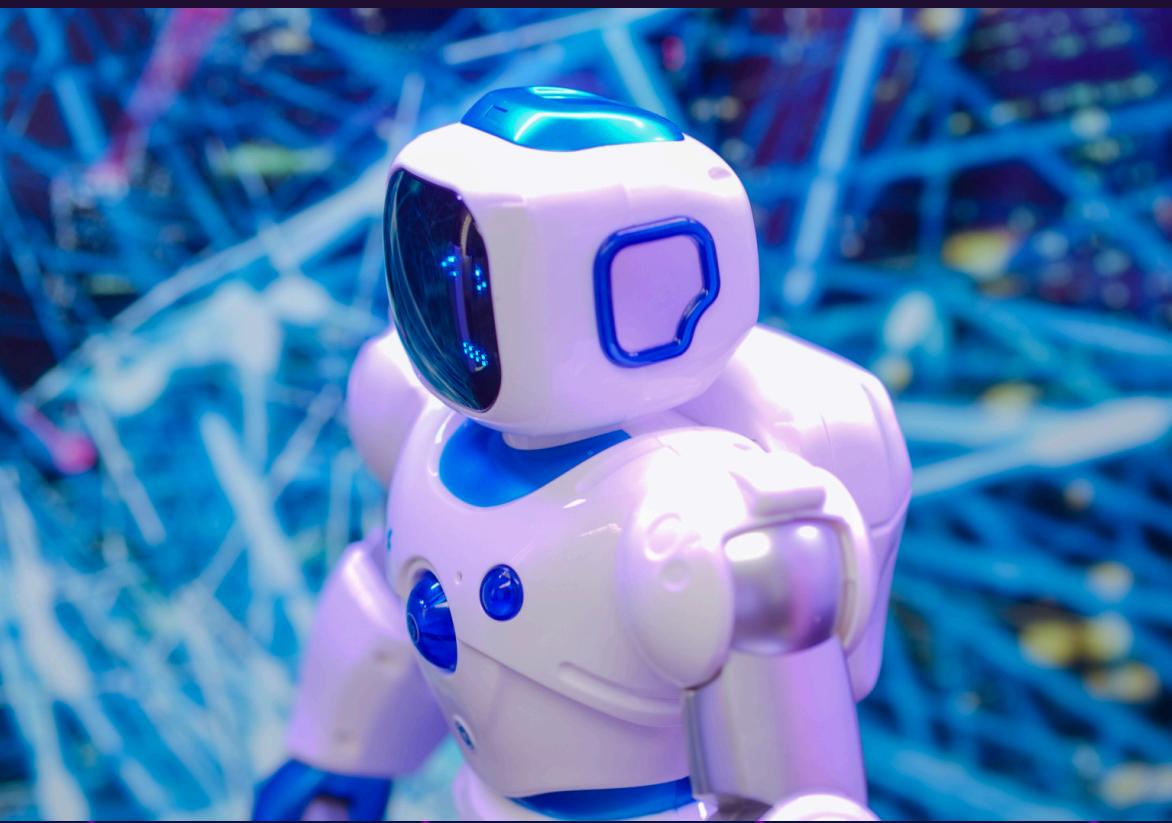


# FUTURE SCOPE

Going forward, Pixel Patrollers aims to expand its capabilities. We plan to add Deepfake Video Detection to analyze fake videos while improving image detection accuracy.

We will also introduce Misinformation Detection using the Gemini API to verify online content and prevent the spread of fake news.

To make Pixel Patrollers more impactful, we will be working on legal structuring to support Computer Forensics, ensuring our platform aligns with cybersecurity laws and can assist in investigations.



**THANK YOU**