

PRESENTATION

By Juma Cavin

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FACE RECOGNITION ATTENDANCE SYSTEM

A robust system designed to authenticate individuals and record attendance using facial recognition technology powered by deep learning.

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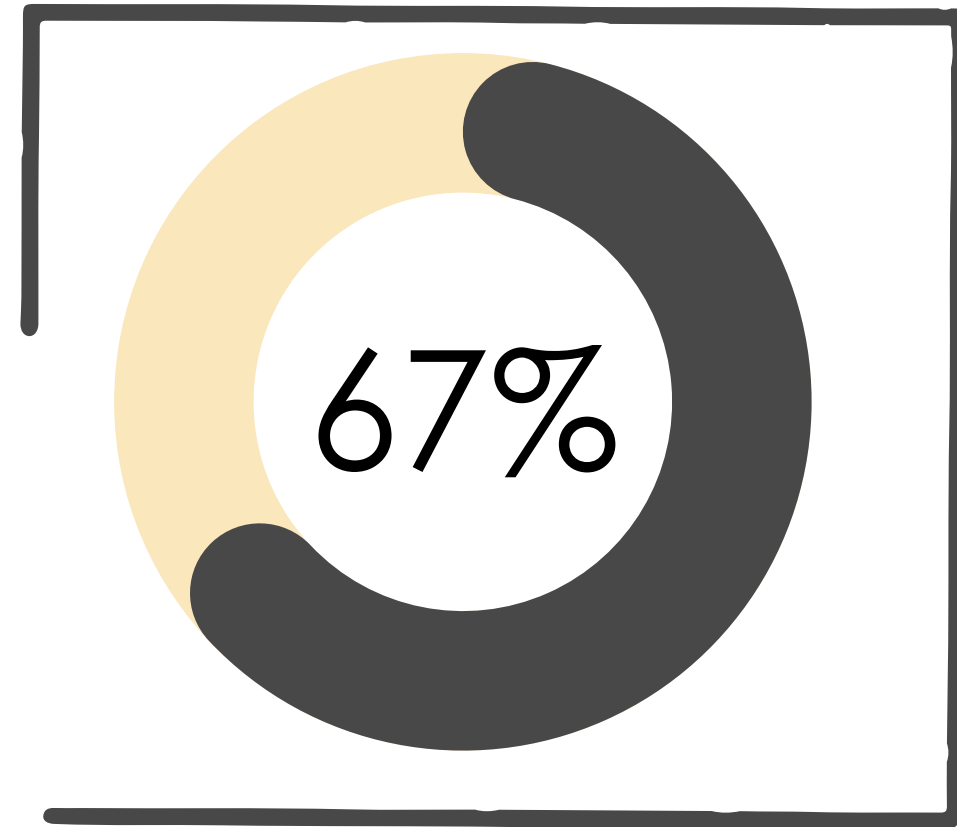
PROBLEM STATEMENT

- Current Attendance Challenges:
- Manual attendance is time-consuming and prone to errors.
- Proxy attendance and buddy punching lead to inaccuracies.
- RFID cards or biometric devices can be lost, stolen, or misused.
- Need: A secure, automated, and user-friendly attendance solution.

MY SOLUTION

Face Recognition Attendance System

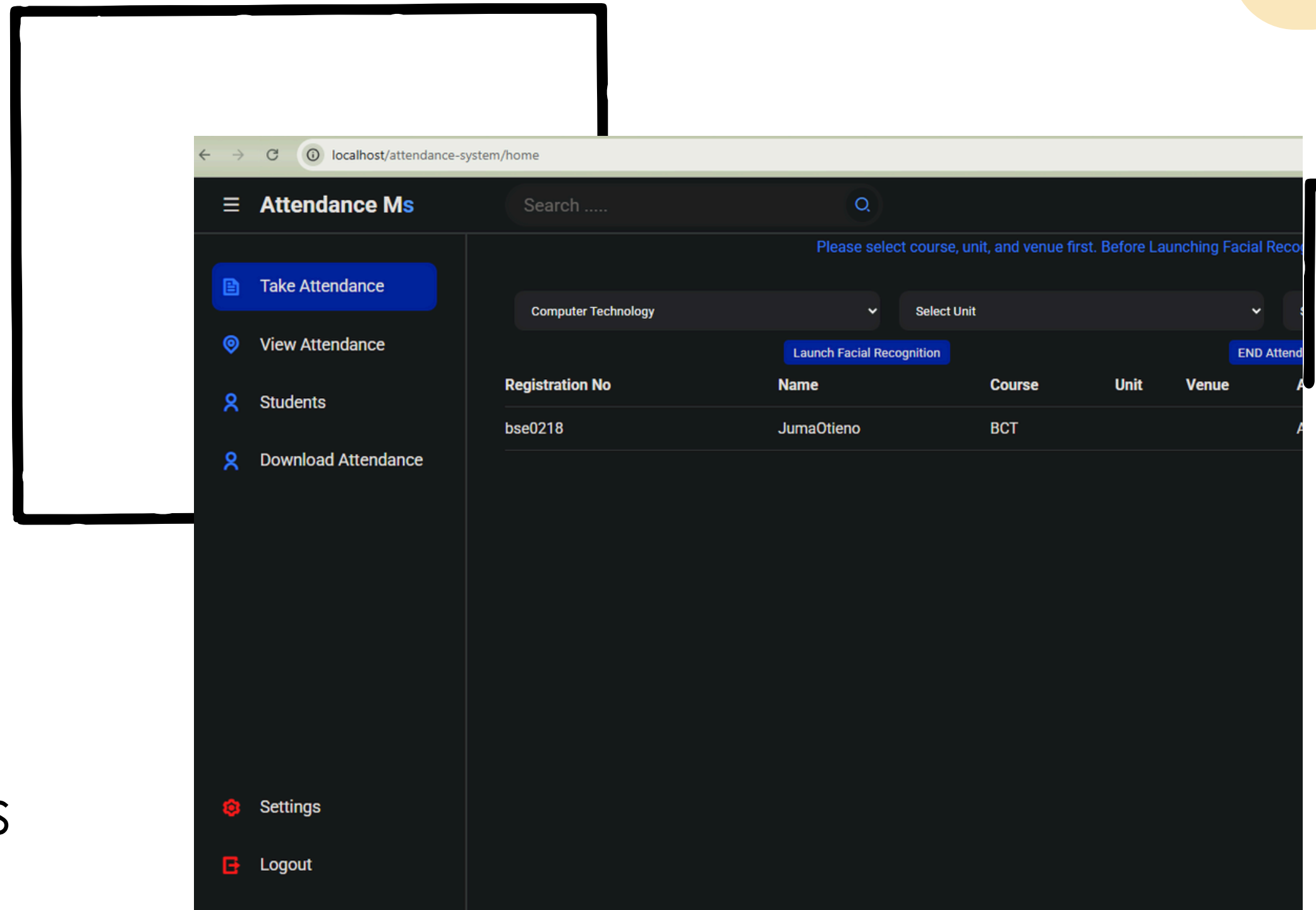
- AI-powered facial recognition for identity verification.
- Instant attendance logging.
- Eliminates proxies and manual errors.
- Designed for classrooms, workplaces, and events.



HOW IT WORKS

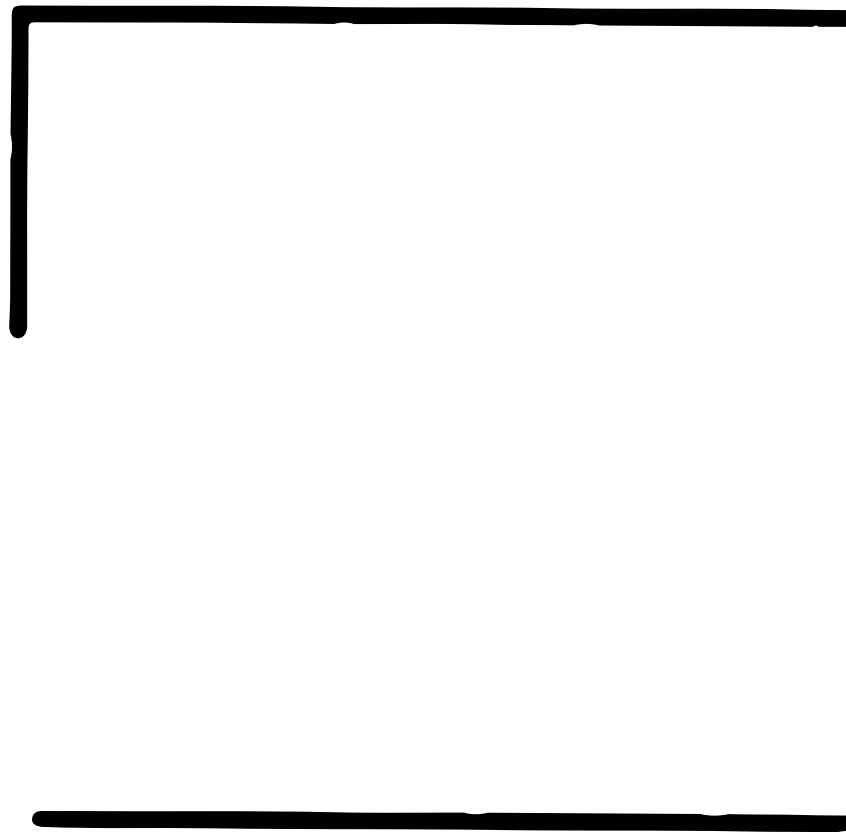
Workflow:

1. Enrollment: Capture and store facial data.
2. Detection: Camera scans faces in real-time.
3. Recognition: Deep learning model matches against database.
4. Attendance Logging: Marks and stores attendance automatically.





KEY FEATURES

- AI-Powered Recognition: Highly accurate face matching.
 - Real-Time Attendance: Instant check-in.
 - Scalable: Supports large groups.
 - Cloud-Ready: Optional cloud storage.
 - Analytics Dashboard: Reports and insights.
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System Architecture

Camera Input → Face Detection → Recognition Model → Database → Dashboard

TECHNOLOGY STACK

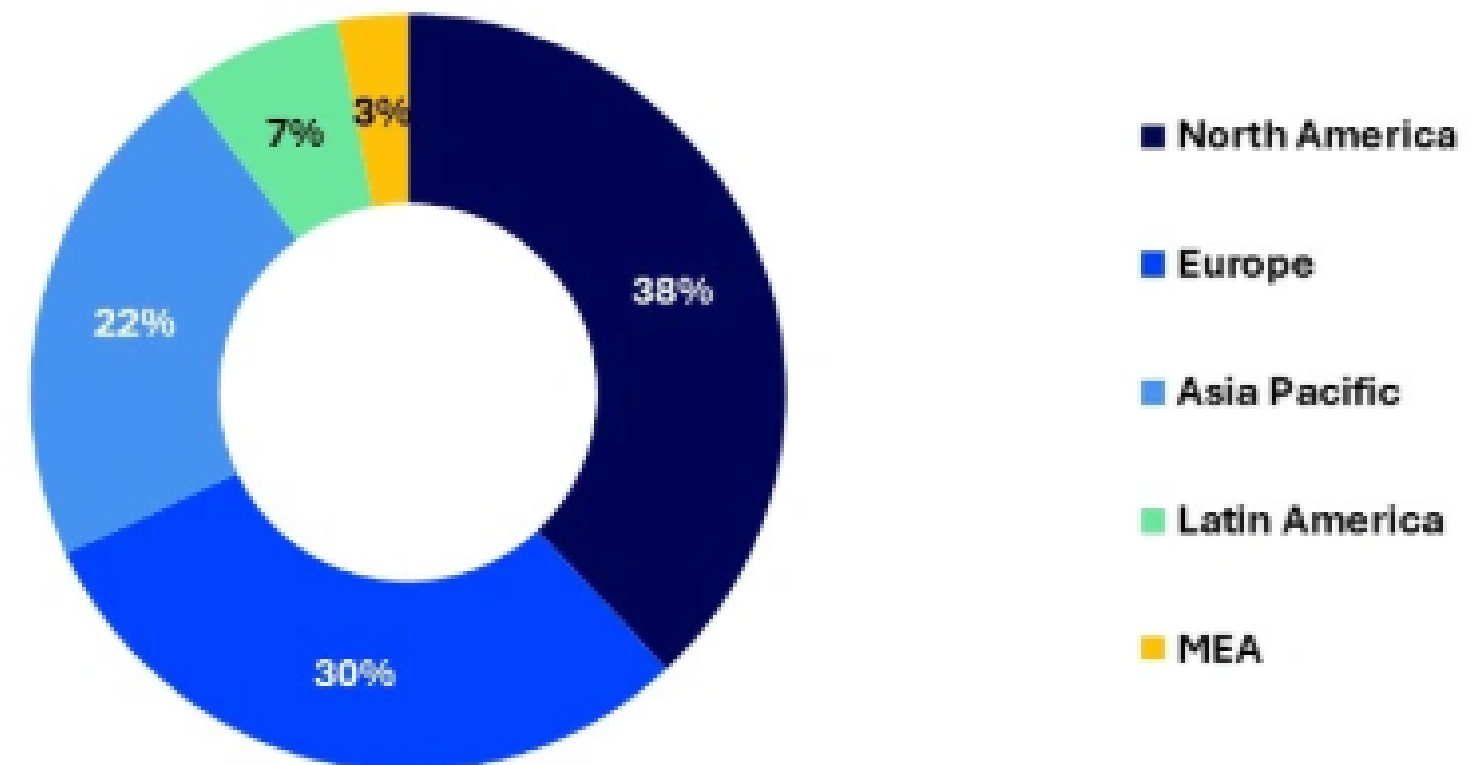
- Backend: Python, PHP
- AI/ML: TensorFlow, PyTorch
- Database: MySQL
- Frontend: HTML, CSS, JavaScript

MARKET OPPORTUNITY

- Education: Schools & universities worldwide
- Corporate: Companies seeking secure time tracking.
- Events: Quick participant check-ins.
- Biometric market: Estimated at \$68B by 2025.



Facial Recognition Market Share, By Region, 2024 (%)



COMPETITIVE ADVANTAGE

Feature	Our System	Traditional Systems
Proxy Prevention	✓ Yes	✗ No
Hands-Free	✓ Yes	✗ No
Real-time Logging	✓ Yes	✗ No
Secure & Scalable	✓ Yes	⚠ Limited

REVENUE MODEL

- Direct Sales: Software licenses for institutions.
- Subscription: Monthly cloud services.
- Customization: Client-specific features.
- Hardware Bundles: Cameras with system packages.



THANK YOU