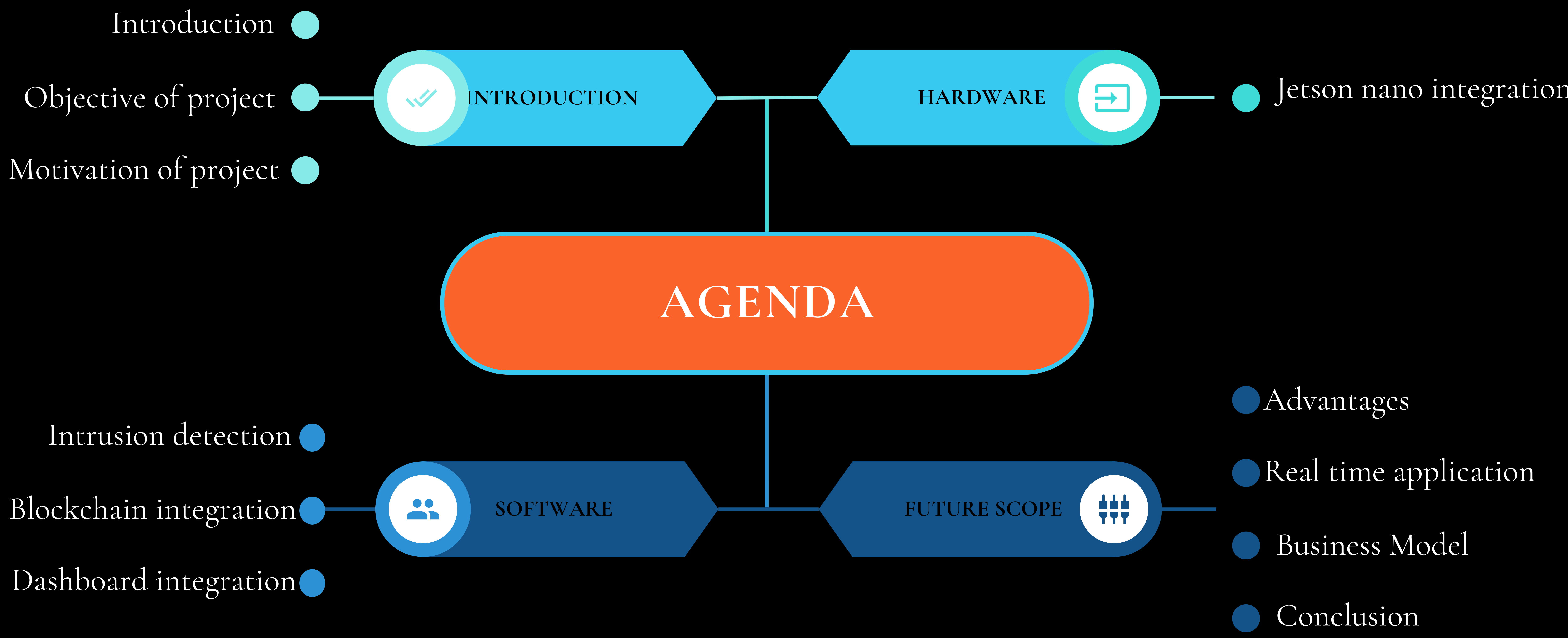
AURABOT

AURASAFE



AGENDA

INTRODUCTION

- Introduction
- Objective of project
- Motivation of project

HARDWARE

- Jetson nano integration

SOFTWARE

- Intrusion detection
- Blockchain integration
- Dashboard integration

FUTURE SCOPE

- Advantages
- Real time application
- Business Model
- Conclusion

INTRODUCTION

"The Cyber Guardian of the Future—An AI That Fights Back!"
A cybersecurity revolution. An AI revolution. A revolution that redefines what it means to be secure in a world where cyberattacks are no longer a rare occurrence but a common occurrence.Imagine if I said to you that your networks are intelligent. That your security programs can learn. That your defenses can cure themselves—on their own?Because that's precisely what we have constructed.Meet the AI-Driven Quantum-Resistant **Self-Healing** Cyber Guardian ! This is more than an **intrusion detection** system.This is more than an AI firewall.This is an independent, self-protecting, self-healing AI guardian—designed to safeguard networks from today's threats and tomorrow's quantum-fueled threats.

OBJECTIVE

ENHANCE NETWORK SECURITY

Identify and block unauthorized access, with real-time monitoring and response to threats.

ENSURE DATA INTERGRITY AND TRANSPARENCY

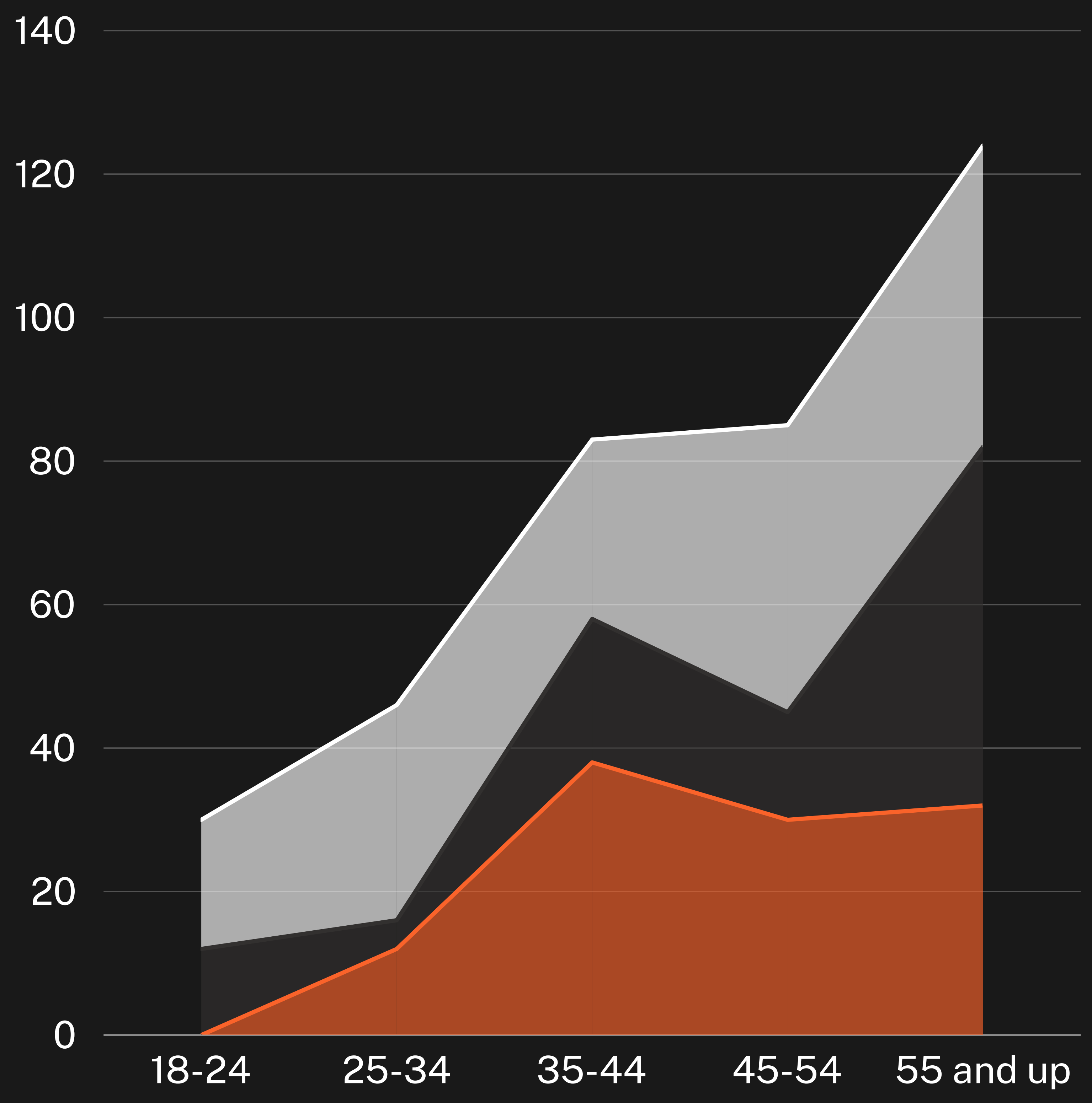
Have a secure logging mechanism to keep an immutable record of intrusion attempts, enhancing trust and accountability.

IMPROVE INCIDENT RESPONSE

Offer automated alerts and actionable insights to efficiently mitigate cyber threats and minimize response time.

MOTIVATION OF THIS PROJECT

The surge in cyberattacks, such as unauthorized access, malware, and data breaches, has highlighted the shortcomings of conventional security. Lacking real-time intrusion detection, threats remain hidden until major damage has occurred, incurring losses in terms of money and data. Sensitive sectors like finance, healthcare, and government institutions are still much at risk because attackers use sophisticated methods like AI-fueled attacks and zero-day exploits



Intrusion Detection

🚀 Overview

- Detects unauthorized access in real-time
- Integrates blockchain for secure logging
- Dashboard UI for monitoring & control

🛠️ Tech Stack

- Jetson Nano (Edge AI)
- Blockchain (Tamper-proof logs)
- PyQt/Kivy or React (Interactive UI)

🔍 Key Features

- AI-powered Intrusion Detection
- Live Threat Monitoring Dashboard
- Automated Intruder Mitigation

🔒 Impact

- Enhances cybersecurity
- Reduces false alarms
- Real-time risk prevention

JETSON NANO INTEGRATION

Jetson Nano Specifications:

Jetson Nano is an embedded AI computing device developed by NVIDIA, designed for edge AI applications with high efficiency and low power consumption.

1. *Hardware Specifications:*

- CPU: Quad-core ARM Cortex-A57 (64-bit)
- GPU: 128-core Maxwell GPU with CUDA support
- Memory: 4GB LPDDR4 (25.6 GB/s bandwidth)
- Storage: microSD card slot (supports up to 128GB)
- Connectivity:
    - Gigabit Ethernet (RJ-45)
    - 4 x USB 3.0 ports
    - HDMI and DisplayPort support
    - MIPI CSI camera interface

Power:

- 5V/4A DC Barrel Jack or Micro-USB (5V/2A)
- Power modes: 5W and 10W

I/O Ports:

- 40-pin GPIO Header (Raspberry Pi compatible)
- I2C, I2S, UART, SPI, and PWM support

2. Software Support:

- **Operating System**: Ubuntu-based NVIDIA JetPack SDK (includes CUDA, cuDNN, TensorRT, OpenCV, and DeepStream)
- **AI Frameworks Supported:**
  - TensorFlow, PyTorch, Caffe, MXNet
  - ONNX, Keras, and other ML/DL frameworks
- **Edge AI Applications:**
  - Computer Vision, Object Detection, Speech Recognition, Robotics