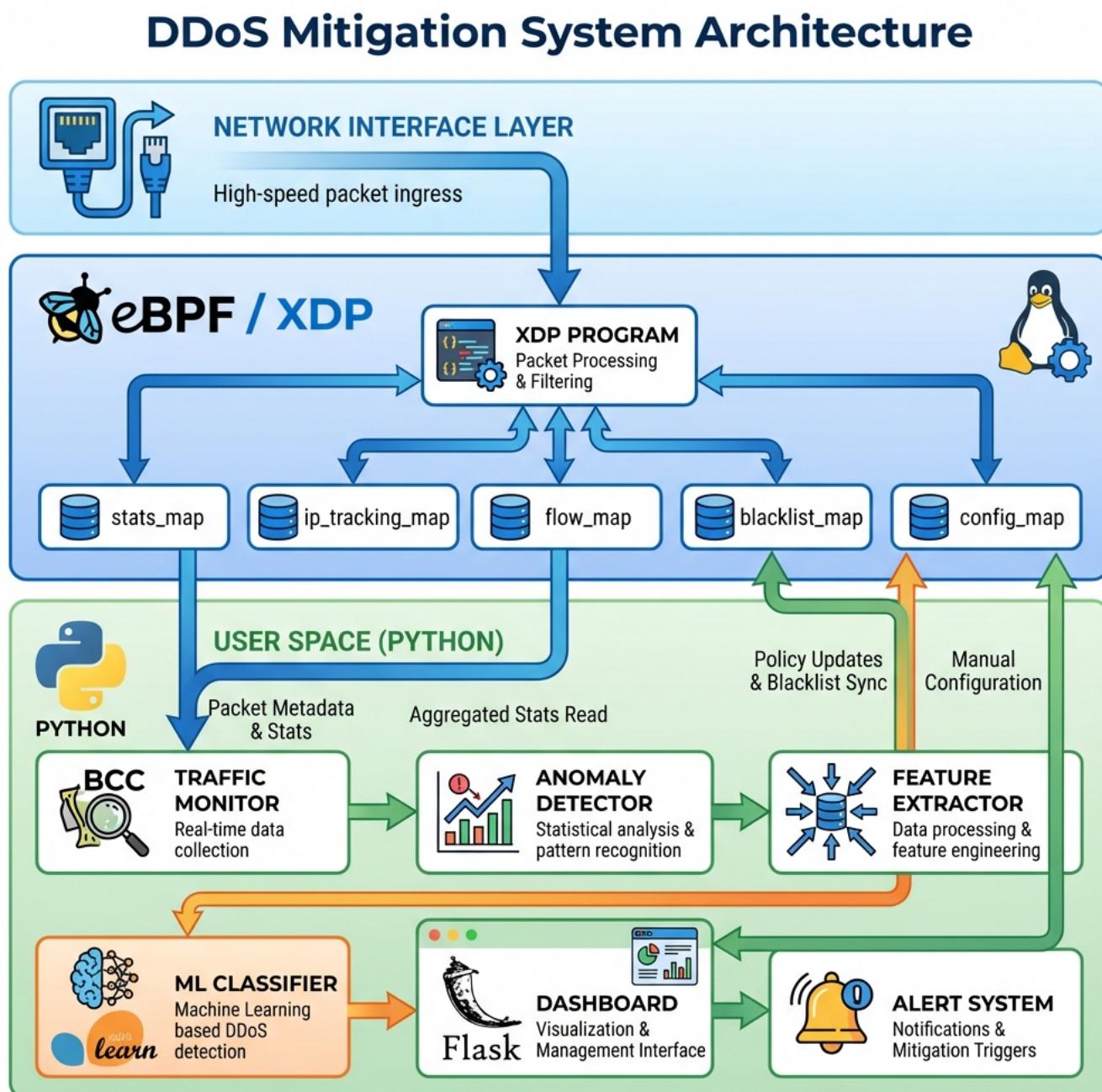


Visual Documentation - Quick Access

This directory contains comprehensive visual documentation for the Rapid-Corona DDoS Mitigation System.

Available Diagrams

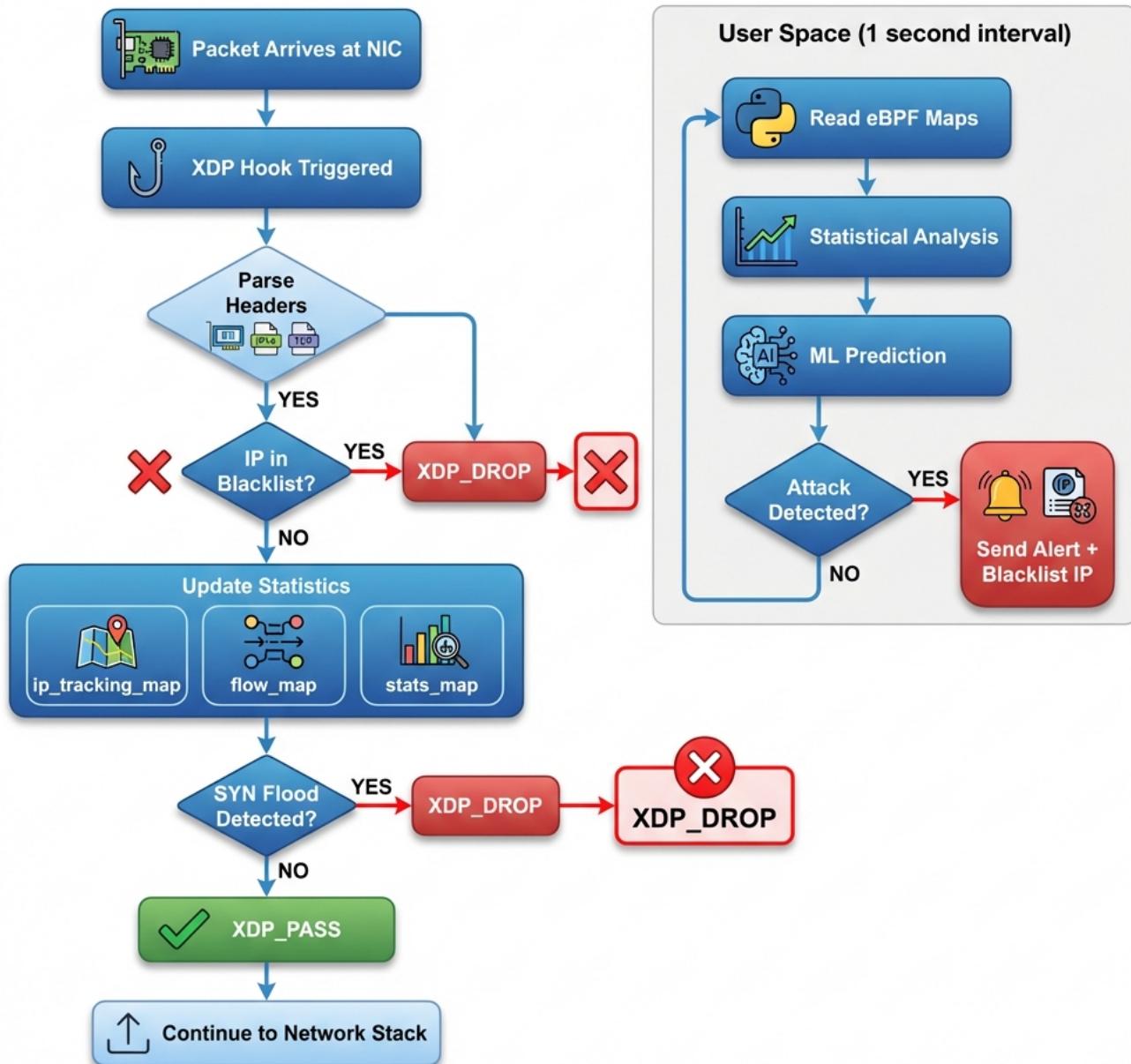
1. System Architecture Diagram



- Complete system overview with all layers
- Technology logos and component relationships
- Data flow between kernel and user space

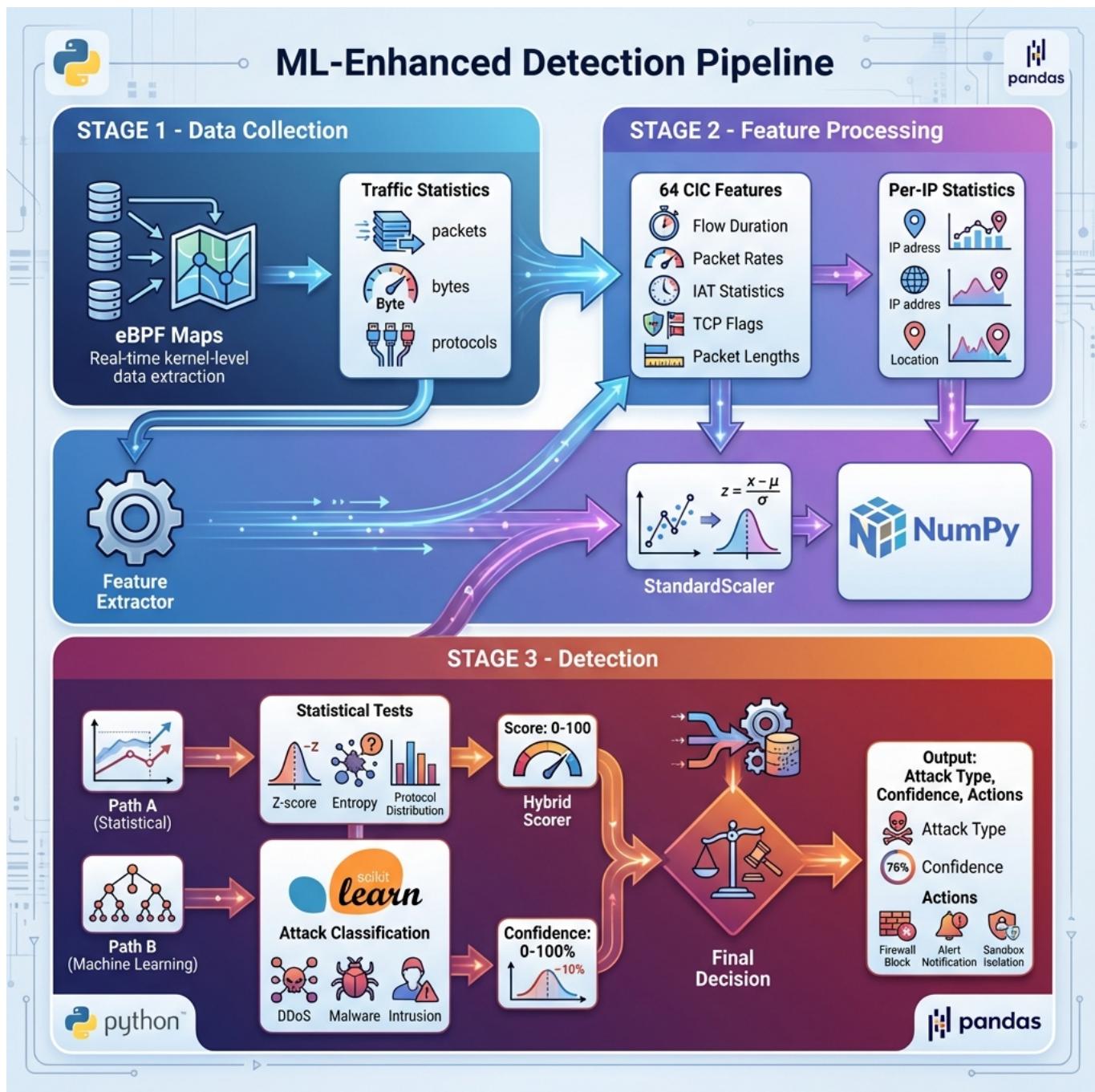
2. Packet Processing Flowchart

DDoS Mitigation System: XDP & eBPF Flowchart



- Detailed packet processing flow
- XDP/eBPF kernel operations
- User space analysis pipeline

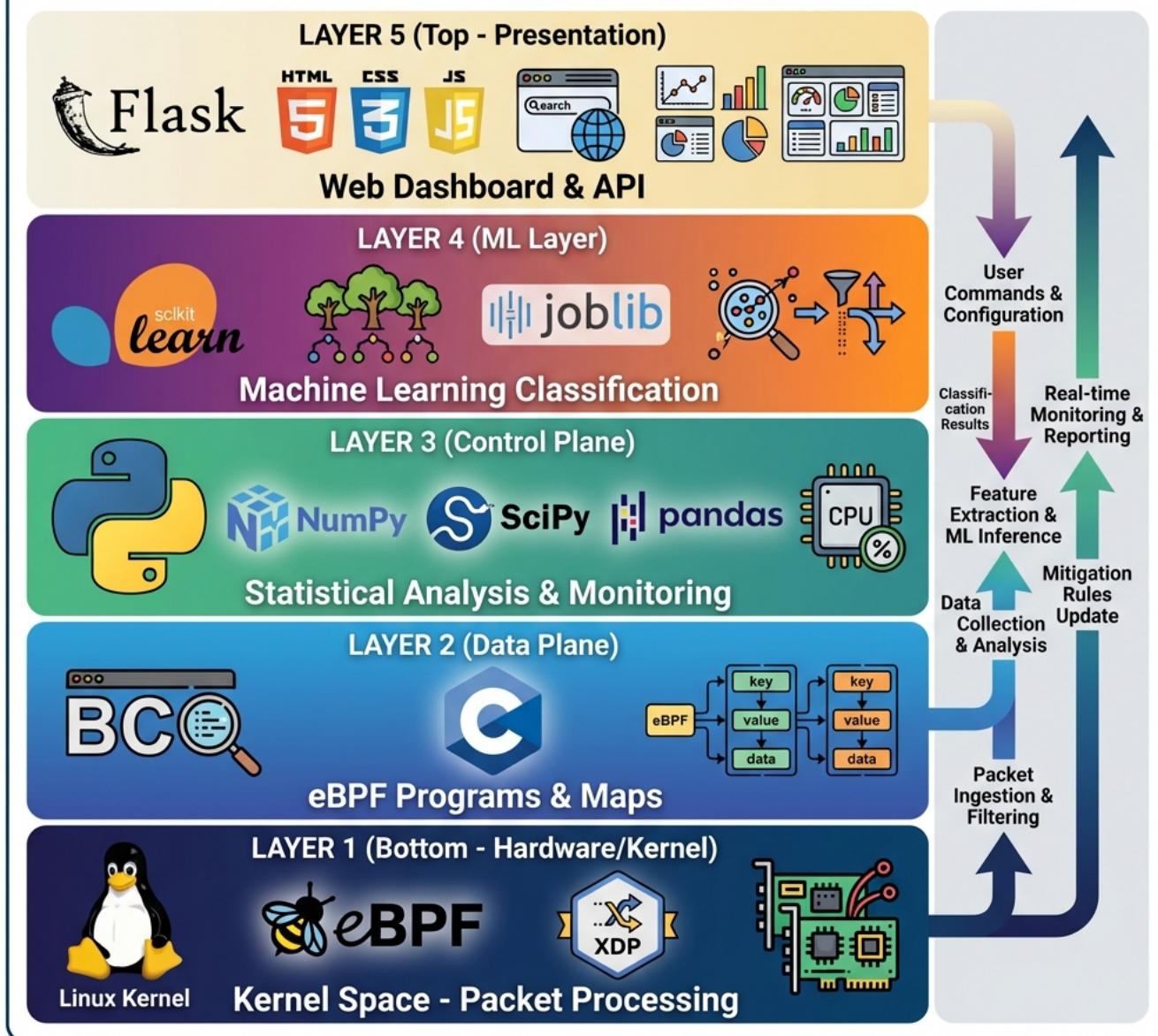
3. ML Detection Pipeline



- Three-stage ML detection process
- Feature extraction and classification
- Hybrid scoring mechanism

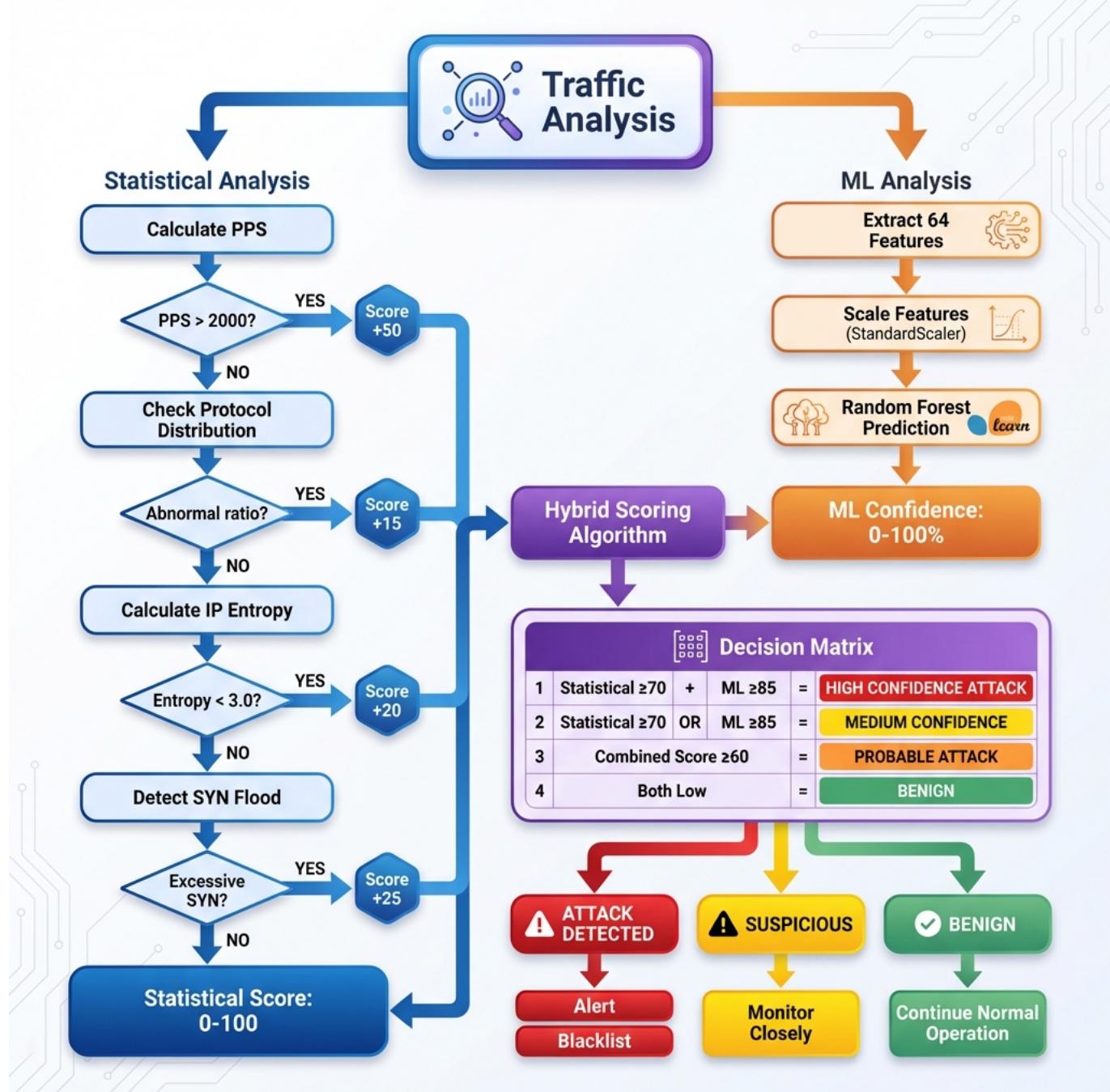
4. Technology Stack Layers

DDoS Mitigation System Technology Stack



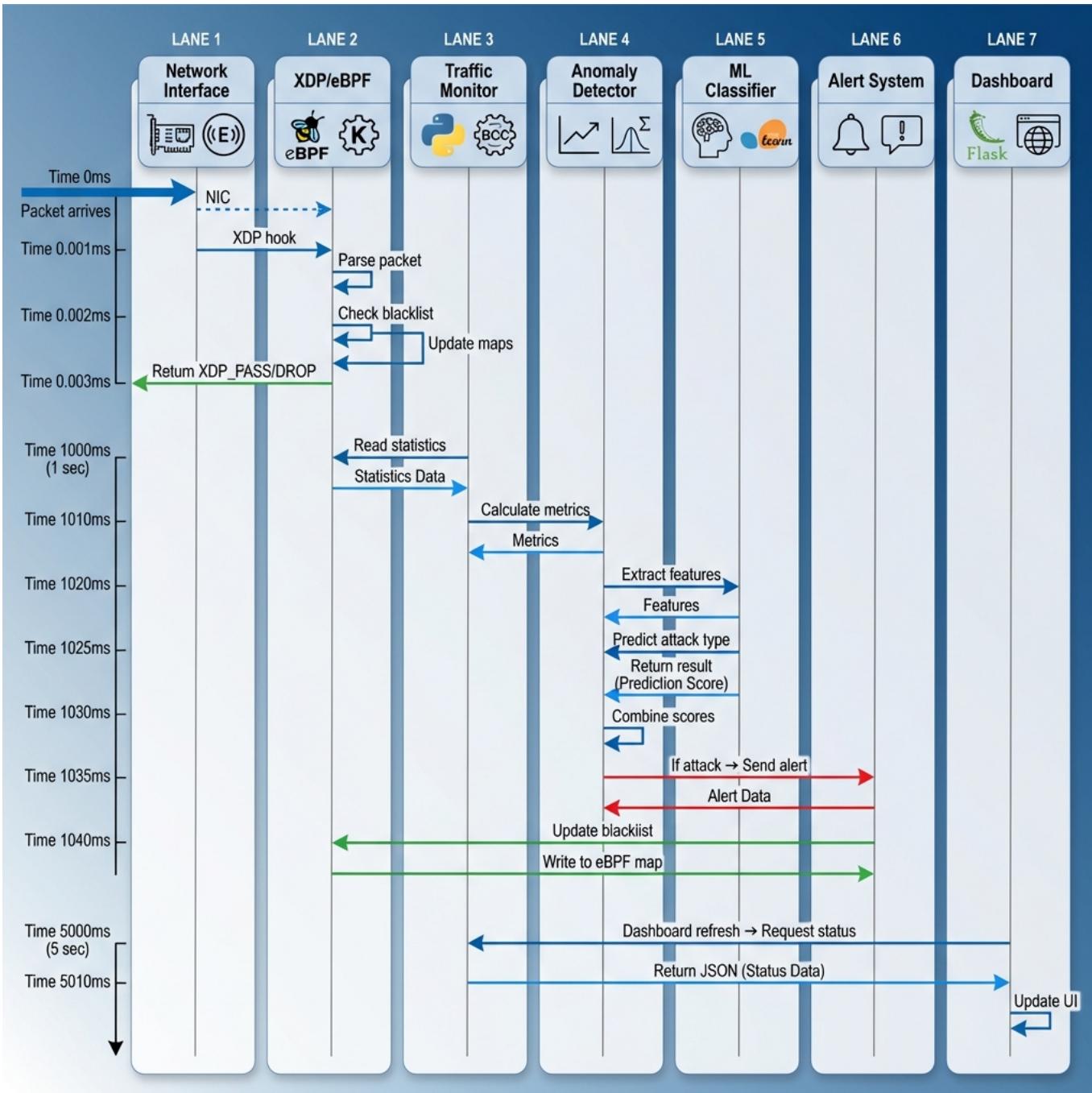
- Five-layer architecture
- All technologies with logos
- Data flow between layers

5. Detection Decision Tree



- Hybrid detection logic
- Statistical and ML analysis paths
- Decision matrix and outcomes

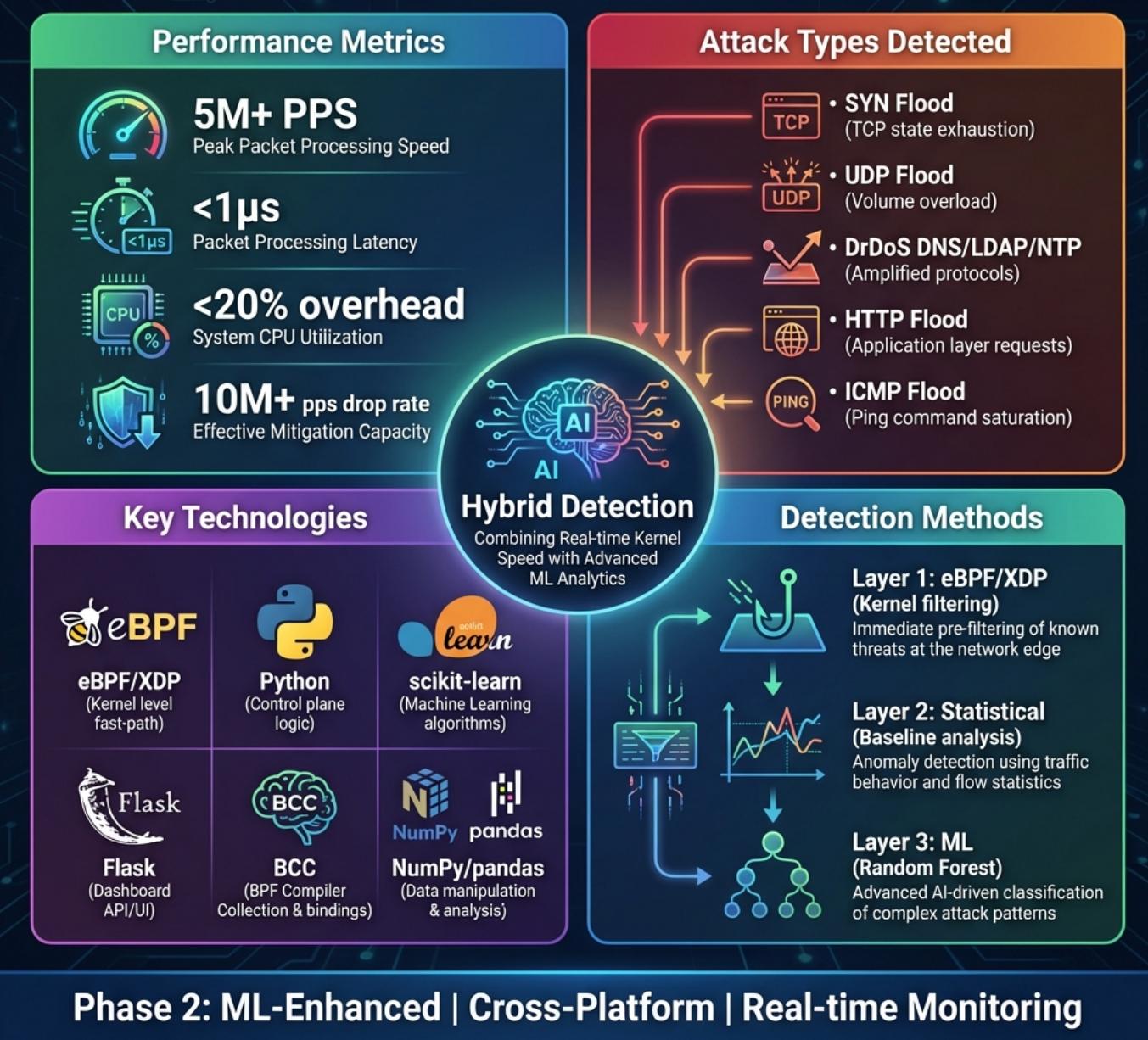
6. Real-time Sequence Diagram



- Temporal flow of data
- Precise timing information
- Component interactions

7. Quick Reference Overview

Rapid-Corona DDoS Mitigation System - Quick Reference



Phase 2: ML-Enhanced | Cross-Platform | Real-time Monitoring

- Performance metrics at a glance
- Attack types detected
- Key technologies
- Detection methods

8. Complete Data Journey



- End-to-end packet processing
- Numbered steps with timing
- All decision points

📖 Documentation Files

- **DIAGRAMS.md** - Detailed explanation of all diagrams
- **projectexplained.md** - Complete project documentation
- **README.md** - Project overview
- **USAGE_GUIDE.md** - Usage instructions

🌐 Diagram Features

- ✓ **Professional Design** - Modern flat design with gradients
- ✓ **Technology Logos** - eBPF, Python, scikit-learn, Flask, etc.

- Color Coded** - Blue (kernel), Green (user space), Orange (ML)
- Clear Typography** - Easy to read labels and annotations
- High Resolution** - Suitable for presentations and documentation

Quick Start

1. **Understanding the System?** → Start with [system_architecture_diagram.png](#)
2. **Learning Packet Flow?** → Check [packet_processing_flowchart.png](#)
3. **ML Integration?** → Review [ml_detection_pipeline.png](#)
4. **Quick Overview?** → See [quick_reference_overview.png](#)

Use Cases

For Presentations

- Use high-resolution diagrams in slides
- Reference architecture in technical talks
- Explain system design to stakeholders

For Development

- Understand component interactions
- Debug packet processing issues
- Implement new features

For Documentation

- Include in technical documentation
- Add to project wiki
- Share with team members

Keeping Diagrams Updated

Update diagrams when:

- Architecture changes
- New components added
- Technologies updated
- Performance metrics change

Contact

For questions about the diagrams or project:

- Review detailed documentation in [DIAGRAMS.md](#)
- Check project explanation in [projectexplained.md](#)
- See usage guide in [USAGE_GUIDE.md](#)

Last Updated: January 12, 2026

Diagram Version: 1.0

Total Diagrams: 8