INTELLECTUAL PROPERTY CLAIM CERTIFICATE

Machine Learning Model Validation Technique

CONFIDENTIAL DOCUMENT

Nexus Intelligent Systems, Inc.

Intellectual Property Registration

DOCUMENT REFERENCE: NIS-IPR-2024-0037

EFFECTIVE DATE: January 22, 2024

1. PRELIMINARY DECLARATIONS

1 This Intellectual Property Claim Certificate ("Certificate") is executed by Nexus Intelligent Systems, Inc., a Delaware corporation with principal offices at 1200 Technology Park Drive, San Jose, California 95134 (hereinafter referred to as "NIS" or the "Company").

2 The purpose of this Certificate is to formally document and validate the proprietary Machine Learning Model Validation Technique (the "Technique") developed exclusively by the Company's research and development team.

2. TECHNICAL DESCRIPTION

1 **Technique Overview**

The Machine Learning Model Validation Technique represents a novel algorithmic approach to assessing predictive model reliability through multi-dimensional statistical inference and adaptive validation protocols.

2 **Technical Specifications**

- Proprietary validation methodology for machine learning predictive models
- Advanced statistical inference algorithms
- Dynamic model performance assessment framework
- Adaptive validation protocol with real-time calibration mechanisms

3 **Unique Technological Characteristics**

(a) Probabilistic error detection with >92% accuracy

(b) Automated model performance degradation identification

(c) Continuous learning and self-calibration capabilities

(d) Cross-domain applicability across industrial predictive maintenance scenarios

3. INTELLECTUAL PROPERTY CLAIMS

1 NIS hereby asserts exclusive intellectual property rights encompassing:

- Algorithmic design
- Implementation methodology
- Derivative computational processes
- Associated software implementations

2 **Patent Pending Status**

- Provisional Patent Application: No. 63/456,782
- Filing Date: September 15, 2023
- Anticipated Full Patent Submission: Q2 2024

4. OWNERSHIP AND RIGHTS

1 The Technique has been developed exclusively by NIS employees, specifically:

- Dr. Michael Chen, Chief Technology Officer
- Dr. Elena Rodriguez, Chief Executive Officer
- Dr. James Nakamura, Principal Machine Learning Architect

2 All intellectual property rights, including but not limited to patents, copyrights, trade secrets, and associated derivative works, are exclusively owned by Nexus Intelligent Systems, Inc.

5. CONFIDENTIALITY PROVISIONS

1 This Certificate and the described Technique constitute confidential proprietary information.

2 Unauthorized disclosure, reproduction, or utilization of the Technique shall constitute a material breach of intellectual property rights.

6. LIMITATIONS AND DISCLAIMERS

1 NIS reserves the right to modify, update, or discontinue the Technique at its sole discretion.

2 While the Technique demonstrates significant predictive capabilities, NIS does not warrant

absolute predictive accuracy in all scenarios.

7. EXECUTION

IN WITNESS WHEREOF, the undersigned authorized representatives of Nexus Intelligent Systems, Inc. execute this Intellectual Property Claim Certificate.

Authorized Signatures:

Dr. Elena Rodriguez

Chief Executive Officer

Nexus Intelligent Systems, Inc.

Michael Chen

Chief Technology Officer

Nexus Intelligent Systems, Inc.

Date of Execution: January 22, 2024

[Corporate Seal]