# EMPLOYMENT AND COMPENSATION AGREEMENT

THIS EMPLOYMENT AND COMPENSATION AGREEMENT (this "Agreement") is made and entered into as of January 15, 2024 (the "Effective Date"), by and between NEXUS INDUSTRIAL INTELLIGENCE, INC., a Delaware corporation with its principal place of business at 2500 Innovation Drive, Suite 400, Wilmington, Delaware 19801 (the "Company"), and DR. ALEXANDER PATEL, an individual residing at 127 Technology Circle, Cambridge, Massachusetts 02142 (the "Executive").

## 1.0 PREAMBLE AND RECITALS

WHEREAS, the Company is engaged in the development and commercialization of proprietary machine learning and computer vision solutions for industrial process optimization and predictive maintenance, including its NexusCore<sup>TM</sup> Industrial AI Platform (the "Business"), with operations primarily conducted in the State of Delaware and various international jurisdictions;

WHEREAS, the Company desires to employ the Executive as Chief Machine Learning Officer, and the Executive desires to accept such employment with the Company, effective as of the date set forth herein;

WHEREAS, the Executive possesses specialized expertise in artificial intelligence and machine learning algorithms particularly applicable to industrial applications, including but not limited to deep learning architectures, neural network optimization, and computer vision systems;

WHEREAS, the Executive has demonstrated exceptional qualifications through prior achievements in the field of industrial artificial intelligence, holding multiple patents and having published extensively in peer-reviewed journals;

WHEREAS, the Company acknowledges that the Executive's specialized knowledge and expertise are essential to advancing the Company's proprietary technology platform and maintaining its competitive advantage in the industrial AI marketplace;

WHEREAS, both parties acknowledge that the nature of the Executive's role requires access to highly confidential information and trade secrets relating to the Company's proprietary algorithms, software architecture, and customer implementations; and

WHEREAS, the parties desire to enter into this Agreement to define their respective rights and obligations with respect to the Executive's employment by the Company, including compensation, benefits, confidentiality obligations, and intellectual property rights.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

## 2.0 DEFINITIONS

- 2.1 "Confidential Information" means all non-public information, whether in oral, written, or electronic form, concerning the Company's Business, including but not limited to: (a) machine learning algorithms, neural network architectures, and training methodologies; (b) computer vision systems and image processing techniques; (c) predictive maintenance models and associated parameters; (d) source code and technical documentation; (e) customer data and usage patterns; (f) research and development activities; (g) business strategies and financial information; (h) model optimization techniques and hyperparameter configurations; (i) data preprocessing methodologies and feature engineering approaches; (j) system integration protocols and deployment architectures; and (k) performance metrics, benchmarking results, and validation methodologies.
- 2.2 "Company Technology" means the NexusCore<sup>TM</sup> Industrial AI Platform and all associated software, algorithms, models, methodologies, and technical implementations, including all improvements, modifications, and derivative works thereof. This encompasses: (a) proprietary software libraries and frameworks; (b) custom-developed machine learning models; (c) data processing pipelines; (d) user interface components and visualization tools; (e) API specifications and integration protocols; (f) deployment configurations and scaling mechanisms; and (g) documentation, training materials, and technical specifications.
- 2.3 "Intellectual Property" means all patents, patent applications, copyrights, trademarks, trade secrets, and other intellectual property rights related to the Company Technology or arising from the Executive's employment, including: (a) inventions, discoveries, and improvements; (b) algorithms and mathematical models; (c) software implementations and code repositories; (d) technical documentation and specifications; (e) training data and model parameters; (f) experimental results and research findings; (g) product designs and architectural diagrams; and (h) marketing materials and brand assets.
- 2.4 "Competitive Business" means any business engaged in developing or commercializing artificial intelligence or machine learning solutions for industrial process optimization, predictive maintenance, or quality control within the manufacturing sector. This includes entities that: (a) develop similar AI-powered industrial platforms; (b) offer competing predictive maintenance solutions; (c) provide machine learning consulting services to manufacturing clients; (d) create industrial automation software incorporating AI capabilities; or (e) market data analytics solutions for manufacturing operations.
- 2.5 "Technical Documentation" means all materials describing the design, architecture, implementation, or operation of Company Technology, including: (a) system architecture

- diagrams; (b) API documentation; (c) deployment guides; (d) model training procedures; (e) validation protocols; (f) testing methodologies; and (g) maintenance procedures.
- 2.6 "Derivative Works" means any modification, adaptation, improvement, enhancement, or creation based upon the Company Technology, including: (a) model refinements; (b) algorithm optimizations; (c) feature additions; (d) interface improvements; (e) performance enhancements; and (f) integration capabilities.
- 2.7 "Industrial Application" means any implementation or deployment of Company Technology within manufacturing, processing, or production environments, including: (a) process control systems; (b) quality inspection solutions; (c) equipment monitoring applications; (d) yield optimization tools; and (e) workforce productivity solutions.

## 3.0 EMPLOYMENT TERMS AND DUTIES

- 3.1 Position and Duties
- (a) The Company hereby employs the Executive as Chief Machine Learning Officer, reporting directly to the Chief Executive Officer.
- (b) The Executive shall be responsible for: (i) Leading the development and enhancement of the Company's machine learning algorithms (ii) Overseeing the technical architecture of the NexusCore<sup>TM</sup> platform (iii) Managing the AI/ML research team (iv) Ensuring compliance with AI ethics guidelines and best practices
- (c) The Executive's responsibilities shall further include: (i) Strategic planning and implementation of machine learning initiatives (ii) Development of annual AI/ML roadmaps and technical specifications (iii) Collaboration with other C-suite executives on technology integration (iv) Regular reporting to the Board of Directors on AI development progress (v) Representation of the Company at industry conferences and events
- (d) The Executive shall maintain ultimate responsibility for: (i) Technical decision-making regarding AI architecture (ii) Resource allocation within the AI/ML department (iii) Establishment of development priorities and timelines (iv) Quality assurance of all AI/ML deliverables (v) Protection of Company intellectual property related to AI development
- 3.2 Work Location and Schedule
- (a) Primary work location shall be the Company's headquarters in Wilmington, Delaware.
- (b) Remote work arrangements permitted up to two (2) days per week, subject to Company policy.
- (c) The Executive shall: (i) Maintain core working hours of 9:00 AM to 5:00 PM Eastern Time (ii) Be available for emergency technical consultations 24/7 (iii) Attend quarterly in-person Board meetings (iv) Participate in weekly executive team meetings (v) Travel as required for business purposes, not to exceed 25% of working time

#### 3.3 Performance Standards

The Executive shall: (a) Devote full business time and attention to the Company (b) Comply with all Company policies and procedures (c) Maintain technical documentation of all algorithms and models (d) Adhere to established AI ethics guidelines (e) Meet quarterly development milestones as established by the Board

### 3.4 Technical Oversight and Documentation

- (a) The Executive shall establish and maintain: (i) Comprehensive documentation of all AI/ML systems (ii) Version control protocols for all algorithms (iii) Testing and validation procedures (iv) Security protocols for AI/ML infrastructure (v) Disaster recovery plans for AI systems
- (b) The Executive shall implement: (i) Regular code reviews and quality assessments (ii) Performance monitoring systems (iii) Risk management protocols (iv) Data governance frameworks (v) Technical training programs for team members

### 3.5 Ethical AI Development

- (a) The Executive shall ensure: (i) Implementation of fairness metrics in all AI systems (ii) Regular bias testing and mitigation (iii) Transparency in AI decision-making processes (iv) Privacy protection in data handling (v) Compliance with emerging AI regulations
- (b) The Executive shall establish: (i) Ethics review boards for new AI initiatives (ii) Regular ethical impact assessments (iii) Stakeholder consultation processes (iv) Public transparency reports (v) Internal ethics training programs

#### 3.6 Performance Evaluation

- (a) The Executive's performance shall be evaluated based on: (i) Achievement of quarterly technical milestones (ii) Team productivity and retention metrics (iii) Innovation metrics and patent filings (iv) Budget management and resource utilization (v) Compliance with ethical guidelines and regulations
- (b) Performance reviews shall be conducted: (i) Quarterly by the Chief Executive Officer (ii) Annually by the Board of Directors (iii) With written documentation of all evaluations (iv) Including specific technical and managerial metrics (v) With clear objectives for subsequent periods

## 3.7 Continuous Professional Development

(a) The Executive shall: (i) Maintain current knowledge of AI/ML developments (ii) Participate in relevant industry conferences (iii) Engage in continuous learning programs (iv) Share knowledge through internal training sessions (v) Contribute to the broader AI research community

## 4.0 COMPENSATION AND BENEFITS

- 4.1 Base Salary The Executive shall receive an annual base salary of \$375,000, payable in accordance with the Company's standard payroll practices. Such salary shall be reviewed annually by the Board of Directors and may be adjusted upward based on performance, market conditions, and Company growth. Base salary payments shall be subject to all applicable withholdings and deductions required by law. Any increase in base salary shall not serve to limit or reduce any other obligation to the Executive under this Agreement.
- 4.2 Equity Compensation (a) Initial grant of 150,000 restricted stock units (RSUs), to be issued pursuant to the Company's Equity Incentive Plan (b) Four-year vesting schedule with one-year cliff, whereby 25% of the RSUs vest on the first anniversary of the grant date, and the remaining RSUs vest in equal quarterly installments over the subsequent three years (c) Additional performance-based equity grants as determined by the Board, subject to the following conditions: (i) Achievement of specified revenue targets (ii) Successful completion of strategic initiatives (iii) Market expansion milestones (d) All equity grants shall be subject to the terms and conditions of the Company's standard equity agreements and applicable securities laws (e) Accelerated vesting provisions shall apply in the event of a Change in Control, as defined in Section 8.0
- 4.3 Annual Bonus Target bonus of 40% of base salary based on: (a) Company performance metrics, including: (i) Annual revenue growth targets (ii) EBITDA objectives (iii) Market share expansion (b) Technical milestone achievement, including: (i) Product development deadlines (ii) Technology infrastructure improvements (iii) Innovation metrics (c) Product development objectives, measured by: (i) Customer adoption rates (ii) Feature deployment timelines (iii) Quality assurance standards (d) Bonus payment timing and conditions: (i) Annual bonus to be paid within 60 days of fiscal year-end (ii) Executive must be employed on payment date (iii) Pro-rated for partial year service
- 4.4 Benefits Package (a) Health, dental, and vision insurance: (i) Premium coverage for Executive and immediate family (ii) Annual healthcare flexible spending account contribution of \$2,500 (iii) Executive wellness program participation (b) 401(k) with 4% Company match: (i) Immediate vesting of Company contributions (ii) Additional discretionary profit-sharing contributions (iii) Investment advisory services (c) Life and disability insurance: (i) Term life insurance coverage of 3x annual salary (ii) Short-term disability coverage at 66.67% of salary (iii) Long-term disability coverage at 60% of salary (d) Professional development allowance: (i) Annual budget of \$10,000 for continuing education (ii) Conference attendance and speaking engagements (iii) Professional association memberships (e) Four weeks paid vacation: (i) Ability to carry over up to one week annually (ii) Cash compensation for unused vacation days (iii) Additional personal and sick leave as per Company policy
- 4.5 Additional Compensation Provisions (a) All compensation subject to periodic review and adjustment (b) Company reserves right to modify benefits programs with notice (c) Executive

eligible for future compensation programs offered to senior executives (d) Reimbursement for reasonable business expenses (e) Participation in Company's deferred compensation plans, if any (f) Executive housing allowance for required relocations (g) Annual transportation allowance of \$6,000

### 5.0 INTELLECTUAL PROPERTY AND INVENTIONS

### 5.1 Assignment of Inventions

- (a) The Executive hereby irrevocably assigns, transfers, and conveys to the Company all right, title, and interest in and to: (i) All algorithms, models, technical innovations, discoveries, improvements, developments, and inventions, whether or not patentable, conceived, developed, reduced to practice, or authored during employment (ii) All improvements, modifications, or enhancements to Company Technology (iii) All patents, patent applications, and intellectual property rights related to the Business (iv) All documentation, source code, specifications, and technical materials associated with such inventions
- (b) The Executive acknowledges that all works created during employment are "works made for hire" under applicable copyright laws, with all rights vesting in the Company.
- (c) The Executive shall promptly disclose to the Company all Inventions and maintain comprehensive records thereof, including: (i) Laboratory notebooks and research documentation (ii) Development timelines and milestone achievements (iii) Technical specifications and implementation details (iv) Test results and performance data

#### 5.2 AI/ML Specific Provisions

- (a) All machine learning models, training data, associated parameters, and derivative works developed by Executive shall be Company property, including: (i) Neural network architectures and weights (ii) Feature engineering methodologies (iii) Training datasets and preprocessing pipelines (iv) Hyperparameter configurations (v) Model optimization techniques (vi) Inference engines and deployment configurations
- (b) Executive shall maintain detailed documentation of: (i) Algorithm architecture and design decisions (ii) Model training procedures and methodologies (iii) Performance metrics and validation results (iv) Data preprocessing and augmentation techniques (v) Model versioning and iteration history (vi) Deployment and scaling considerations
- (c) The Executive shall ensure proper documentation of: (i) Model limitations and constraints
- (ii) Known biases and mitigation strategies (iii) Security considerations and vulnerability assessments (iv) Privacy preservation measures (v) Ethical considerations and compliance measures

### 5.3 Open Source Software

- (a) Executive shall strictly comply with Company's open source software policy, including: (i) Maintaining an inventory of all open source components (ii) Documenting license terms and obligations (iii) Ensuring compliance with license requirements (iv) Conducting regular code audits
- (b) No open source components may be incorporated into Company Technology without: (i) Prior written approval from the Chief Technology Officer (ii) Legal review of license implications (iii) Documentation of dependency management (iv) Risk assessment and mitigation planning
- 5.4 Intellectual Property Protection
- (a) Executive shall assist the Company in: (i) Preparing and prosecuting patent applications (ii) Maintaining trade secrets and confidential information (iii) Defending intellectual property rights (iv) Executing necessary documentation
- (b) Executive shall maintain confidentiality of: (i) Training methodologies and techniques (ii) Model architectures and implementations (iii) Performance optimization strategies (iv) Proprietary algorithms and approaches
- 5.5 Third-Party Rights
- (a) Executive warrants that all Inventions: (i) Are original works of Executive (ii) Do not infringe third-party rights (iii) Are free from encumbrances (iv) Comply with applicable laws and regulations
- (b) Executive shall not incorporate into Company Technology: (i) Third-party intellectual property without authorization (ii) Previously developed personal works without disclosure (iii) Academic research without proper attribution (iv) Licensed materials without compliance verification
- 5.6 Post-Employment Obligations
- (a) Upon termination of employment, Executive shall: (i) Return all technical documentation and materials (ii) Transfer all research and development materials (iii) Provide comprehensive knowledge transfer (iv) Continue to maintain confidentiality
- (b) Executive's obligation to assist in intellectual property matters shall survive termination of employment.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date. NEXUS INDUSTRIAL INTELLIGENCE, INC.

By:	Name: Dr. Sarah Chen Title: Chief Executive Officer
EXECUTIVE:	

Dr. Alexander Patel

EXHIBIT A: Performance Metrics and Bonus Calculation EXHIBIT B: Restricted Stock Unit Agreement EXHIBIT C: AI Ethics Guidelines

[Note: Exhibits to be attached]