

Research Article

Exploration on the Teaching Reform Measure for Machine Learning Course System of Artificial Intelligence Specialty

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Due to the particularity of the artificial intelligence major and the machine learning courses learned, the traditional course teaching model is not suitable for artificial intelligence major machine learning courses. Based on this background, this article proposes a new system based on machine learning curriculum teaching reform. It mainly includes the reform of curriculum teaching mode, curriculum practice reform, and teaching process reform. In order to verify the effect of the proposed new model on the teaching quality of machine learning courses, this article also proposes an evaluation method based on intelligent technology. Firstly, the feasibility of evaluation based on intelligent technology is described. Secondly, it lists the application details of the existing teaching evaluation based on intelligent technology. Finally, a novel teaching quality evaluation system based on intelligent technology is proposed. The system collects student facial expression data and uses classification algorithms to make classification decisions on the data. The result of the decision can give feedback on the quality of classroom teaching. The comparison of experiments based on different intelligent technologies shows that the teaching quality evaluation system proposed in this article is feasible and effective.

1. Introduction

In near few years, some new-generation information technologies are proposed, such as cloud computing, Internet of Things technology, human-computer interaction, and mobile Internet. Now, the big data has come into people's daily life, resulting in huge amounts of data information. The most important significance of studying big data is to discover new knowledge, create new value, enhance new capabilities, and improve new products through the analysis and mining of massive data. However, what too much data brings to people may not be more insights, but rather lost. The value of data lies in forming information, turning it into knowledge, and even subliming into wisdom. If the data cannot be further deeply processed, even if the amount of data is large, the meaning is very small. Therefore, how to efficiently process data and use it to drive decision-making is particularly important. Traditional data processing models did not

meet the ever-increasing demand for data processing and analysis. So artificial intelligence (AI) has emerged [1,2]. The field of artificial intelligence (AI) is a subset of computer science. It is a brand-new field dedicated to researching and developing ideas, methodologies, technologies, and application systems for mimicking, extending, and increasing human intellect. AI has a wide range of applications, including computer vision, natural language processing, language recognition, medical imaging, robotics, and information retrieval [3]. And the AI has made certain breakthroughs and has become the core technology of some high-tech products.

To aggressively support the optimization of universities' scientific and technical innovation systems in the field of artificial intelligence, as well as the enhancement of the artificial intelligence staff training system [4], we need to vigorously promote undergraduate teaching activities related to artificial intelligence. Among them, the most critical

is the development of machine learning courses. Such courses mainly include advanced mathematics, linear algebra, data structure, algorithm design and analysis, probability theory and mathematical statistics, machine learning, artificial intelligence, and other professional basic courses related to machine learning. These courses are frequently extremely professional and theoretical, and students frequently fall behind in following professional courses as a result of inadequate early mastery of advanced mathematics, linear algebra, and other mathematical concepts.

To address these issues, this article will develop a new teaching mode, track students' learning situations intelligently, and alter the learning state as needed. From the traditional "teacher teaches, students learn" model to a "teacher-student interaction" model [5], it is foreseeable that with the in-depth development of this model, we will better cultivate high-level professional talents, which is also a useful exploration of the teaching model in the new era. This paper's key contribution is as follows:

- (1) The challenges that exist in the course teaching have been outlined through research on the teaching system of the artificial intelligence professional machine learning course.
- (2) A novel teaching approach is developed to address issues in the teaching of machine learning courses. Teaching model reform, curricular practice reform, and teaching process reform are all part of the new model reform.
- (3) A teaching quality evaluation system based on intelligent technology is presented to test the efficiency of the proposed teaching method. Students' facial expression data is collected, and classification choices are made using classification algorithms. The quality of classroom instruction may be correctly fed back based on the outcome of the choice.

2. Current Situation of AI Teaching

2.1. Current Situation of AI Professional Construction. Artificial intelligence is a very new field. It has grown dramatically in recent years due to the popularity of deep learning. Based on the deep learning technologies, the AI technology has become an inexorable development trend. Now, many universities around the world have opened courses related to artificial intelligence, especially artificial intelligence, automation, computer, and big data. Artificial intelligence courses have been included as important basic courses. There are 367 universities in the world with artificial intelligence research directions. The United States is in the first echelon. Canada, China, India, and the United Kingdom are in the second echelon. At present, in China, the Chinese Academy of Sciences was the first university to offer this major. After investigation and summary, the overall construction plan and ideas of Chinese universities are shown in Figure 1, which summarizes the learning content and goals of each grade.

Knowledge representation, automatic reasoning and search methods, machine learning and knowledge

acquisition, knowledge processing systems, natural language comprehension, computer vision, intelligent robotics, automatic programming, and other topics are covered in artificial intelligence research. Basic topic courses, new professional courses, professional elective courses, and professional independent courses are the four types of current courses [6]. As shown in Table 1, this kind of curriculum design meets the gradual and comprehensive curriculum design requirements.

2.2. Problems in the Teaching of Machine Learning Courses

2.2.1. Highly Professional Courses. Machine Learning (ML) is a multifield, multidisciplinary study that encompasses probability theory, statistics, approximation theory, convex analysis, algorithm complexity theory, and other topics [7]. Its main goal is to figure out how computers can replicate or actualize human learning behaviors in order to learn new things and rearrange current knowledge structures in order to improve their own performance. It is the foundation of artificial intelligence, the most basic method for making computers clever, and its applications span all artificial intelligence domains. As a result, "machine learning" is a required fundamental course for students in computational intelligence science in colleges and universities (such as intelligence science and technology) [8]. In theory, the main content of the "machine learning" course should include several important aspects of computational intelligence technology: decision tree learning (ID3, C4.5), function-based learning (neural network, support vector machine, etc.), Probability-based learning (Bayesian network), instance-based learning (k nearest neighbors), rule-based learning, and commonly used methods for evaluating algorithm efficiency. Before taking this course, students must have a theoretical background in order to fully comprehend the underlying mechanisms of these methodologies. Advanced mathematics, linear algebra, mathematical logic, probability and statistics, algorithm design and analysis, and programming language are the primary preparatory subjects (C language or Java). At the same time, these "machine learning" methods provide important theoretical and methodological foundations for other professional courses in computational intelligence, such as "pattern recognition" and "data mining." Therefore, the teaching purpose and methods of the "machine learning" course should not only be limited to introducing the principles of the main classic algorithms of machine learning, but more importantly, it should help students establish a methodology for technical research and development in computational intelligence. The professional knowledge required for these courses is generally more demanding for undergraduate students, requiring a good foundation in mathematics and programming skills [9]. Moreover, the knowledge points covered in each course are large, and simple learning is difficult to digest. However, in actual teaching, in order to catch up with the teaching progress, teachers often ignore the learning difficulties of students, and students lack the ability to learn by

Innovation and entrepreneurship	Engineering practice ability		Academic research ability
Innovation and entrepreneurship	Industry training		Academic training
Innovation and Entrepreneurship Competition Simulation business plan Management training Entrepreneurship time ability training	Business practice International workshop Innovative research projects and competitions		Science and Technology Competition Research Project International exchange student
Entrepreneurship Practice Base + Industry Practice Base + Academic Research Center			
Freshman Basic Mathematics Freshman Guidance	Sophomore Professional teaching and innovative practice Personalized ability guidance	Junior Professional skills enhancement Personality ability diversion	Senior year Comprehensive ability training Personality improvement
Programming language + programming + hardware and system + artificial intelligence application			

FIGURE 1: Construction plan and general idea.

themselves, which eventually leads to the phenomenon of being tired of learning or even not learning.

2.2.2. *Boring Traditional Teaching Model.* Traditional teaching consists mostly on centralized teaching in classes, with fixed time, fixed classrooms, and fixed teaching materials, with professors serving as the primary body and students serving as the object. The procedure is tedious, uninteresting, and boring. The teaching environment is drab and dismal; and pupils' enthusiasm for learning and initiative are low [10].

For example, in machine learning, the teacher first teaches the knowledge points, and then the students create the code to implement them, such as supervised learning, unsupervised learning, and semisupervised learning. In the teaching method, if students do not understand the knowledge points or practice in time, theoretical learning will be out of touch with practice. In addition, this teaching model makes it impossible for teachers to take into account the requirements of students at different levels and to meet the needs of students' individual development. However, most college teachers still use this traditional teaching model, which causes students to feel more boring and less involved in machine learning courses, thus failing to achieve the expected teaching effects. In the teaching process, because students do not fully understand the mechanisms and practical applications of various computational intelligence methods, they believe that, if they do not engage in computer-related work in the future, they will not be involved in

such algorithms. In addition, most students at this stage do not have more mature ideas for future study and work development. So they do not know how learning this course can help their subsequent development, which increases their negative emotions [11]. In order to stimulate students' enthusiasm and interest in the professional knowledge learning of artificial intelligence courses, it is imperative to explore and research the teaching methods of artificial intelligence courses.

2.2.3. *Formalization of Professional Practice.* Professional practice teaching is an important link in the entire undergraduate teaching activities. Professional practice teaching is an important teaching method that integrates theory with practice. It can not only train students to master scientific experimental methods and innovative thinking skills, but also to improve college students' practical ability [12], problem analysis, and problem-solving ability [13]. Furthermore, professional practice teaching liberates students from tedious textbook rules, broadens students' horizons through situational learning, enhances work opportunities, and better adjusts them to changing times and societal growth.

Practical instruction is particularly important in practical and practical machine learning courses. Currently, most schools and universities place a premium on information while ignoring talent. And they place a premium on theory while ignoring practice. For example, theoretical lectures frequently take up 48 class hours in a 64-class machine

TABLE 1: Machine learning curriculum.

Coursetype	Technical course name
Subject platform course	Computer Composition Principles, Probability Theory and Mathematical Statistics, Database System Principles, Programming, Computer Networks, Digital Signal Processing, Advanced Mathematics, Linear Algebra
Professional core courses	Object-oriented Technology and C++, Python Programming, Machine learning, Computer Graphics, Digital Image Processing, Algorithm Analysis and Design, Artificial Intelligence.
Professional elective courses	Computer Vision, Data Acquisition Technology, Digital Security Technology, Software Engineering, Information Visualization, Compilation and Interface, Cloud Computing Technology, Website Construction and Network Communication.
Professional self-directed courses	Cloud Computing, Frontier Lectures on Artificial Intelligence, Bioinformatics, Matrix Analysis, Combinatorial Mathematics, Virtual Reality

learning course, whereas experimental classes only take up 16 class hours. The two are utterly unbalanced in their distribution[14]. Furthermore, experimental courses are frequently of poor quality, with issues such as a lack of comprehensiveness, professionalism, and inadequate engineering applications, making it difficult for students to apply what they have learned in everyday study.

The current experimental class process is roughly the same. The experimental class teacher compiles the syllabus, and the students complete the experiment independently according to the outline, and then they send the experimental results to the teacher for inspection within the specified time, meeting the requirements of society and enterprises for artificial intelligence application talents.

2.2.4. Single Professional Assessment. At present, the assessment methods of machine learning courses mostly focus on the inspection of theoretical knowledge points in textbooks, and memorable knowledge occupies a considerable proportion [15]. The traditional experiment report + final homework method is not suitable for this kind of courses. If the course learning is only driven by exams, students need to learn by rote to cope with the exams in order to fill in standard answers, resulting in high scores and low energy. The final score assesses the ability of the student and cannot be correlated with the actual learning situation of the student. Overall assessment score = 70% final exam + 10% attendance + 10% course experiment + 10% homework. In addition, this test method can easily make students feel boring, abstract and difficult to understand, and even tired of studying.

3. Teaching Reform of Machine Learning Courses for Artificial Intelligence Major

3.1. Teaching Mode Reform of Machine Learning Course. The following ideas for improvement are made in light of the concerns with the teaching approach and the peculiarities of machine learning courses:

- (1) To strengthen students' independent learning abilities, move away from the traditional teacher-based teaching approach and toward a student-based teaching style. Teachers in the classroom pay more attention to guiding students to think and study

independently, and they take the lead in presenting scientific and research frontier issues in the field of machine learning, encouraging students to explore research, think independently, and design solutions by hand. At the same time, students may relate theory to practice and boost their love for learning through case study, essays, group debates, and group projects. Additionally, it is vital to promote students' feeling of initiative and engagement, as well as strengthen communication between students and professors.

- (2) It is vital to teach pupils of various levels according to their aptitude and to provide tailored instruction. Teachers create multiple levels of questions in the classroom to fulfill the developmental requirements of different students and to increase the quality of instruction[16]. Through different types of problems and experiments, students are encouraged to discover and solve problems. For students who are interested in certain research topics, teachers should guide and encourage them to conduct in-depth research, such as joining the teacher's experimental group, and assisting students to publish their research results in excellent journals at home and abroad. Secondly, teachers should be relevant during the experimental design process, respecting each student's unique traits and emphasizing their distinct advantages. Poor pupils should be provided more help. Difficulties should be investigated. And particular assistance should be offered.
- (3) Machine learning courses need to use excellent Internet resources, not limited to textbooks, to expand classroom content. With the advancement of new media technologies, an excellent teaching platform for course instruction, such as MOOCs, has become available [17]. According to the school's planning and construction of online teaching resource library, teachers use the platform to share course videos, build a course chapter system, and enrich course materials. Teachers and students can inquire about extracurricular resources of related courses. Students learn anytime and anywhere, without being restricted by classrooms and teaching materials. Each classmate is required to take lessons, read materials through the Internet, learn the typical application

related knowledge of machine learning, and choose the research direction related to machine learning in which he is interested, relying on PPT courseware, using text, pictures, videos, and other forms to report to everyone in the classroom. During the display process, other students can also ask questions and conduct interactive communication at any time, take advantage of the Internet, pay attention to top journals, read excellent literature, and track excellent algorithms on GitHub and other websites and practice them.

3.2. Practical Reform of Machine Learning Course. As a subject with strong practicality and application, artificial intelligence majors, machine learning courses should focus on cultivating students' problem-solving abilities. Aiming at the shortcomings of traditional professional experiments and combining the characteristics of machine learning courses, we propose the following suggestions:

- (1) From the beginning of the course, teachers should focus on cultivating students' hands-on practical ability, combining theory with practice, and increasing the proportion of experimental classes. Related theoretical knowledge points can be supplemented in experimental classes to improve students' understanding of machine learning algorithms [18]. In order to achieve the purpose of teaching, we can increase the number of extracurricular homework as needed to help children develop their thinking skills and basic skills.
- (2) Teachers should broaden their horizons, visit artificial intelligence-related companies and advanced laboratories on a regular basis, understand the development status and future development trends of machine learning, understand the implementation of related projects, and encourage students to develop in relevant directions for subsequent career choices lay the foundation.
- (3) The school-enterprise cooperation method is adopted for teaching. In the experimental class, it is not only limited to the project. It is necessary to determine the training plan and experimental plan according to the requirements of the society and the enterprise, seamlessly connect the school and the enterprise, and pay attention to the sharing of resources and information between the school and the enterprise. It is necessary to truly combine theoretical knowledge with social practice.
- (4) Creating a semester group project, each semester must form a semester group [19]. From the beginning of the semester, each group needs to select a semester project and submit it at the end of the semester. The goal is to increase students' scientific research and innovation skills as well as their hands-on experience, teamwork ability, and presentation skills. At the end of each semester, following international conventions, each group needs to

communicate and display the semester group projects and display them through oral reports and exhibition boards. Teachers serve as judges to evaluate and score the projects of each group. This is a good advanced training for students to participate in international academic exchanges in the future.

3.3. Teaching Process Reform. We use the creative teaching approach presented in Section 2 instead of the traditional teaching style used in many traditional courses. The three steps of the new teaching style are as follows. The first stage's major goal is to create a firm foundation, mentor new students, and focus on fundamental courses, in addition to the cultivation of fundamental talents and emphasis on students' mathematical ability to avoid pupils from falling behind in professional courses. To develop new training techniques, emphasize on personal ability training, place a premium on fundamental programming language courses, and establish a solid programming foundation are among the goals. The second stage's main goal is to develop students' professional talents, subdivision majors into specializations, rely on industrial training, and collaborate with social enterprises for training, all while focusing on academic ability development. The third stage builds on the second by enhancing students' capacity to address practical issues, solve difficulties through participation in enterprise initiatives, and develop students' practical and cooperative abilities. Students' academic aptitude may be further developed by involvement in experimental groups and other ways, and they can publish relevant articles, allowing them to obtain joint ventures.

- (1) The first level aims to help students comprehend basic mathematical concepts such as advanced mathematics and linear algebra, as well as basic machine learning courses such as Python, algorithm analysis, and design, so that they may build a strong basis for future professional courses. At the same time, it assists students in comprehending the market growth and application of machine learning, allowing them to comprehend the information presented in this sort of course as well as the technology used to support it. Students' ability to innovate might be enhanced further with a solid foundation. They can coach students to improve individual ability and designate unique extracurricular learning programs based on their academic success, psychological capacity, hobbies and interests, and other factors. This is the first step in the admission process for freshmen. The major goal is to grasp the fundamentals of mathematics and programming in order to establish a solid basis for future professional development.
- (2) In the second stage, on the basis of mastering basic knowledge and basic skills, students will further strengthen their professional abilities through subdivision of majors, and at the same time carry out innovative practice, industrial training, and

academic ability training. The most important thing in this stage is to digest the theoretical knowledge of the first stage through innovative practice, to further deepen the understanding and knowledge of knowledge, at the same time to further improve one's knowledge level in the project, and to further enhance one's academic ability in the algorithm design.

- (3) In the third stage, through the second stage of hands-on training, students' engineering practice ability, innovation and entrepreneurship ability, and academic research ability have been improved. After possessing these abilities, students will be able to play a certain role in their own majors, thereby increasing their employment competitiveness and improving their professional skills.

4. Evaluation Method Reform of Machine Learning Course

Aiming at the single assessment method based on the traditional score-based approach, machine learning courses should adopt diversified assessment methods. Attendance and classroom performance mainly assess students' learning attitude and course participation, as well as their mastery of basic theoretical knowledge. The experimental operation of the basic algorithm verifies the students' phased results and examines the students' application skills and whether they have mastered the basic algorithms of machine learning [20]. The group project mainly assesses whether students have the ability to apply algorithm theory to solve engineering problems, and the comprehensive design of the project assesses whether students have the ability to comprehensively use machine artificial intelligence and recognition technology learning algorithms and deep learning algorithms to solve engineering problems. The division of labor and collaboration of team members assess students' teamwork spirit and collective awareness. Participating in the course competition encourages students to participate in credible and competitive competitions, to have a deep understanding of course knowledge, and to enhance students' learning enthusiasm and engineering practice ability. Debriefing and defense examine students' language organization and communication skills. Question asking encourages students to learn to think, analyze, and solve problems. It is important to organize project design materials and write project development documents to test students' writing skills, exercise students' ability to organize and compile papers, and further enhance students' understanding of practical projects [21]. In addition to attendance, homework and experimental performance, teachers can also score based on students' creativity in theory and experimental classes. You can also score based on students' after-school communication performance, seminar performance, and additional items.

In the machine learning practice class, in addition to evaluating the form of the student project experiment report, the student's design plan, design process, experiment effect, experiment code and personal performance should also be

evaluated. In addition, you can also use mutual assessment and self-assessment between students to give points to stimulate students' independent learning ability and enthusiasm.

4.1. Feasibility Analysis of Intelligent Technology Applied in Machine Learning Course. At present, intelligent technology is widely used in fields such as autonomous driving, face recognition, speech recognition, computer vision, and deep learning. At the same time, more and more teachers are paying attention to how to apply intelligent technology to teaching work. Machine learning courses are part of intelligent technology. It is very feasible to use intelligent technology to tutor machine learning courses.

The teaching system of machine learning courses based on intelligent technology contains two major functions, as follows.

4.1.1. For Students. Being liberate from the traditional boring classroom, improves students' practical ability, systematically evaluates students scientifically based on the homework completed by students and classroom performance, and adopts a grading system for scoring. Excellent students can be rewarded. System-wide notification can increase students' sense of honor, enhance their learning enthusiasm, and play an exemplary and leading role. In addition to classroom performance, for some extracurricular practice projects, you can recommend relevant students to participate in the society based on student applications or system intelligence analysis [22]. Companies are really meant to provide students with a practical platform, improve project experience, and make a good foundation for future employment. For students with strong academic ability and those who want to pursue academic development, the system will also provide a corresponding paper inquiry mechanism. And teachers will also provide guidance to help students complete the paper submission work. In general, an intelligent teaching system may provide each student with a growth platform that is appropriate for him, as well as match the diverse learning demands of pupils.

4.1.2. For Educators. The intelligent teaching system may summarize and assess students' homework, classroom performance, and after-class question and answer in order to increase teachers' teaching efficiency. Based on the scores, teachers may immediately assess their students' learning circumstances and change their own teaching progress and material. Inquiries concerning each student's studies, homework, implementation project, thesis analysis, and scientific research project may also be made by the system. Based on the inquiry results, the instructor would provide focused assistance, which will help to improve teaching efficiency. At the same time, this type of positive contact can help students learn more effectively.

4.2. Application of Intelligent Technology in Machine Learning Teaching. Intelligent applications are those that use

technology like computer networks, big data, the Internet of Things, and artificial intelligence to suit people's requirements. In comparison to conventional media, intelligence is a data-driven sublimation of media functions. It indicates that, with the help of intelligent technology, new media will be able to have human-like perception, memory, and reasoning capacities, as well as learning, adaptive, and behavioral decision-making abilities. Human needs are at the core of numerous circumstances. New media can actively sense the external world, make judgments, and act on it using data processing and feedback in a way comparable to human thinking mode and given knowledge and norms. As shown in Figure 2, the use of intelligent technology or artificial intelligence technology in the teaching process creates an intelligent teaching system that can not only enhance instructors' and students' teaching efficiency, but also raise students' enthusiasm in learning. The adoption of intelligent technology is the overall trend of future educational system growth.

The complete teaching framework is separated into three tiers, as indicated in Figure 2. The input layer is the initial layer, and it is responsible for collecting data. The collected content can be divided into three parts. The first part is the specific content of various professional knowledge in the field of study. The form of collection is not limited, including text, pictures, audio, and video. The second part is the teacher's input, giving professional and authoritative answers to the student's questions [23]. The third part is the student's input. According to their own learning situation, students can ask questions about the knowledge they do not understand or the problems they encounter, and they can also describe their own learning status, use a scoring system to evaluate your mastery of knowledge. The second layer is the processing layer, through the analysis and processing of the data collected at the bottom layer, to arrive at a scientific decision. Decision-making mainly includes how to teach a certain course or certain knowledge points to achieve the best teaching effect. The realization of these two layers makes teaching change from one-way transmission to two-way interaction. The third layer is the user layer. Users mainly include students, teachers, and administrators. Users can complete input, search, and delete operations through this layer.

5. Teaching Quality Evaluation System Based on Intelligent Technology

5.1. System Architecture. This study provides a teaching quality evaluation system based on intelligent technology, based on the intelligent teaching system demonstrated in Section 4.2. The system's architecture is seen in Figure 3. The system's core is a machine learning algorithm that classifies and recognizes the acquired facial expression data, as illustrated in the diagram. Based on the recognition results, provide feedback on the classroom teaching quality in order to enhance the classroom teaching effect.

5.2. Emotion Recognition Model-Driven Classroom Teaching Quality Evaluation Method. In order to better identify the

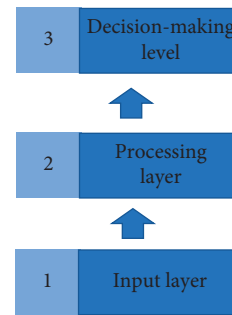


FIGURE 2: Intelligent teaching system architecture.

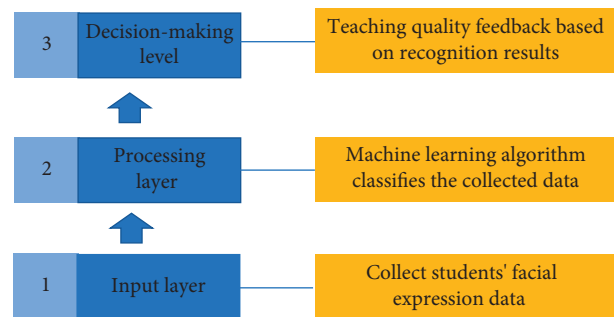


FIGURE 3: Teaching quality evaluation system architecture.

students' class situation, we use facial emotion recognition algorithms to make intelligent judgments on the facial expressions of students in class and give feedback to the teacher based on the judgment results of the classmates. If more than 75% of the classmates' emotional performance in order to be positive and enthusiastic, it proves that the teacher's class mode is very good and can be maintained. If 25% of the students show negative emotions, it means that the teacher needs to adjust the class mode. According to this dynamic adjustment, we ensure that the vast majority of students are active in class.

5.3. Comparison of Classification Results. We employed a total of 408 facial expression datasets, with the first 360 serving as the training set and the final 48 serving as the test set for the model. Anger, fear, disgust, happiness, sorrow, surprise, absence of feeling, and guilt are the eight emotions that we are classified into. To guarantee that the training set and test set are consistent each time, we used support vector machines (SVM) [24], extreme learning machines (ELM) [25], and radial basis functions (RBF) [26] as the classification model to execute 8 random tests on the data set. The following is the outcomes of the experiment.

As shown in Table 2, it can be seen that RBF performs the worst on this data set, which is almost meaningless. SVM performs poorly on multiclassification, and ELM performs best on this data set, with the highest classification accuracy, and ELM has the fastest running time, which is very convenient for us. There is a real-time analysis of students' facial emotions in the classroom, feedback, and adjustment of classroom teaching effects.

TABLE 2: The classification results of the adopted some traditional classification methods.

SVM	RBF	ELM
0.3125	0.125	0.6485
0.3521	0.1426	0.6625
0.3246	0.1242	0.6347
0.3413	0.1762	0.6543
0.3354	0.1761	0.6142
0.3212	0.1564	0.6754
0.3321	0.1264	0.6431
0.3134	0.1435	0.6542

6. Conclusion

Courses in machine learning are an important aspect of artificial intelligence professional education. The study focus of this article is artificial intelligence professional machine learning courses. And it examines the current state and issues of artificial intelligence professional teaching in light of the new era's demand for artificial intelligence talent. Boring courses, a single teaching modality, inadequate professional practice, and rigid evaluation systems are all addressed. This research presents a new intelligent technology-based teacher evaluation system. The data collecting layer, data processing layer, and decision-making layer make up the system's three-layer architecture. In the classroom teaching process, the collecting layer collects student facial expression data, and the processing layer employs classification algorithms to categorize and recognize the data, as well as provide recognition results. Based on the recognition results, the decision-making layer provides feedback on the quality of classroom teaching. Teachers are prompted to improve their own teaching techniques and material when the quality is poor. This paper introduces intelligent technology, which aims to improve the teaching effect and the quality of teaching and train high-level talents by collecting student learning data and analyzing the student's learning situation, ultimately achieving the goal of improving the teaching effect and the quality of teaching and training high-level talents.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare no conflicts of interest.

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