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The construction of practice bases for college students-taking the network engineering major of Guangdong University of Science and Technology as an example

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Abstract: In order to deepen the integration of production and education and enhance the competitiveness of graduates in the market, the network engineering major of Guangdong University of Science and Technology and Shenzhen Xunfang Technology Co., Ltd. established an off-campus practice base for college students, which includes management institutions, teachers, curriculum resources, and competitions. The construction of the base in many aspects, such as, certificates, etc., has achieved certain results.

Keywords: Integration of production and education, practice base, competition.

1. Introduction

In order to deepen the integration of production and education, comprehensively improve the quality of talent training, and solve the problem that the supply side of talent training and the demand side of the industry cannot fully adapt to the structure, quality, and level, there is a problem of "two skins". The State Council issued the "Office of the State Council" in 2017. Several Opinions of the Ministry of Education on Deepening the Integration of Industry and Education, Guangdong Province issued the "Implementation Opinions of the General Office of the People's Government of Guangdong Province on Deepening the Integration of Industry and Education" in 2018. These opinions require that through deepening the integration of production and education, promoting the organic connection of the education chain, the talent chain, the industrial chain, and the innovation chain, and comprehensively improve the quality of talent training [1,2,3].

2. School-enterprise profile

Founded in 2003, Guangdong University of Science and Technology is a full-time general undergraduate college approved by the Ministry of Education of the People's Republic of China. An important node city in the Greater Bay Area"-Dongguan, currently has more than 31,000 full-time students. The school adheres to the school-running strategy of "cultivating people by virtue, putting students first, integrating production and education, serving areas, and coordinated development" to continuously improve the quality of talent training. The network engineering major was established in 2013 and became a school-level key major in 2017 and was granted the right to grant bachelor's degrees; in 2018, it became a school-level comprehensive reform pilot major; in 2019, it passed the IEET engineering education certification and was approved as a provincial first-class professional construction site; 2020 Participate in the construction of Huawei ICT Academy; participate in the construction of Tencent Cloud Industry Academy in 2021.

Shenzhen Xunfang Technology Co., Ltd. was founded in April 2001. It is a leader in domestic information technology services. Xunfang has been working hard to become the best partner for the construction of information technology disciplines and majors in universities, training and delivering for the information technology industry High-quality human resources.

In order to meet the diverse needs of students, the network engineering major relies on the advantages of the Guangdong-Hong Kong-Macao Greater Bay Area and has successively signed school-enterprise cooperation agreements with more than 20 enterprises. In 2020, the network engineering major and Shenzhen Xunfang Technology Co., Ltd. established an off-campus practice base for university students.

3. Construction content

(1) Standardize the management of the practice base and build an efficient management organization

The network engineering professional communication practice base has constructed a three-level management organization of "decision-making, management and executive level". The decision-making level is responsible for the macro decision-making of the off-campus practice teaching base; the management level is responsible for the command and coordination of the practice base; the executive level is responsible Execution of specific tasks.

(2) Strengthen the construction of "dual teachers and dual abilities" teachers in the base

The base adopts a combination of training and introduction to strengthen the construction of the base's teaching staff, encourage teachers to take part in the

practice teaching base, and carry out various forms of professional teacher practical skills training. On the enterprise side, backbones with rich experience are dispatched as practical instructors for the base.

(3) Introduce corporate resources and improve the construction of practical curriculum resources

The high-quality resources of the school and enterprise are connected, the content of Huawei's "Kunpeng" series is introduced, the resources of local application universities and leading enterprises in information and communication technology are integrated, the internship content of the base is clarified in the form of agreements, teaching plans, etc., and core practices are compiled according to the characteristics of the courses Course materials, forming high-quality online practical resources.

(4) Collaborate with enterprises to strengthen "promoting learning with competitions and promoting teaching with competitions" to continuously improve students' employment competitiveness

Cooperate with enterprises to coordinate with the "Network Technology Challenge", "Network Security Competition", "Huawei ICT Competition" and other events, and both schools and enterprises will jointly tutor participating students. Through competitions to promote teaching level, promote the improvement of students' comprehensive practical ability, enhance students' competitiveness at graduation, and enhance the reputation and popularity of both schools and enterprises.

(5) Strengthen the acquisition of the "three certificates" and increase the recognition of students in the market

Cooperating with enterprises, on the basis of ensuring that students obtain academic certificates and degree certificates, guide students to obtain vocational qualification certificates from the government and industry. Vocational qualification certificate is the evaluation and appraisal of the skill level or vocational qualification of workers. The acquisition of vocational qualification certificates shows that graduates have the knowledge and skills necessary to engage in a certain profession, which can enhance their market recognition.

4. Construction effectiveness

At present, the base has accepted a total of 109 students from the School of Computer Science in the two majors of 2017 and 2018 in network engineering and software engineering for practice. Three of the students who participated in the practice base won the second prize of the National Network Technology Challenge, one of them won the third prize of the country, and four of them won the first prize of the South China Division; and two of them won the provincial second prize of the Huawei ICT Competition. Through the bridge role of the base, both schools and enterprises

successfully applied for the Ministry of Education's collaborative education project "Big Data Teacher Training in the Context of New Engineering" in 2020. In 2020, the two parties cooperated with Huawei Technologies Co., Ltd. to establish the Huawei ICT Academy; the base in 2020 Nearly 80 students were recommended to participate in the Shenzhen and Guangzhou stations of the Huawei ICT Talent Alliance Double Election. The students went to Shenzhen Ruike Information Technology Co., Ltd., Shenzhen Hongboyu Communication Technology Co., Ltd., Xunxi Technology Co., Ltd. and other companies to achieve Employment solves the social problem of matching contradictions between supply and demand, and realizes the mutual benefit of school and enterprise.

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