Employment of graduates:

1. Banks of the Republic of Kazakhstan.
2. «Technopark Alatau» LLP.
3. «Alem Research» LLP.
4. «Almatyenergoservice» LLP.
5. «Institute of High Technologies» LLP JSC «NAC «Kazatomprom».
6. «Sistemotekhnika» LLP IHT JSC «NAC «Kazatomprom».
7. «Zhigermunaiservice» LLP.
8. Affiliated State Enterprise National Research Institute of Mathematics and Mechanics.
9. «Institute of space technique and technology» LLP.
10. JSC «National Center of Space Research and Technology»
11. Association of innovative companies (AIC) SEZ «PIT»

Academic mobility

Students have the opportunity to study for 1 or more semesters in international exchange programs in the best foreign universities.

Foreign partners of the department:

- Peter the Great St.Petersburg Polytechnic University
- Novosibirsk State Technical University
- Polytechnic Institute of Porto
- University of West Attica
- University of Library Studies and Information Technologies
- Novosibirsk State University
- Leipzig University of Applied Sciences

Students have the opportunity to:

- attend free circles in various areas of IT (Python, C++, C#, Java, development of websites and Web applications, mobile application development, SQL, analysis of Big Data...)
- attend preparatory courses in professional programming, participate in the ACM ICPC programming world championship
- get international certificates from Microsoft, CISCO, Samsung and other global companies.
- participate in scientific projects and earn money starting from the 2nd year.

Contacts

Al-Farabi Kazakh National University

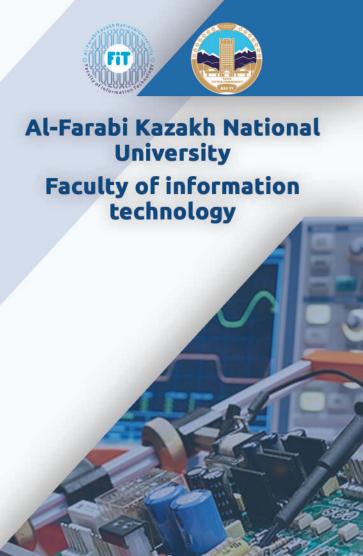**Address: 050040, Republic of Kazakhstan, Almaty, al-Farabi Ave. 71/23**
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Al-Farabi Kazakh National University
Faculty of information technology

Department of computer science
Educational program Computer engineering

Almaty, 2020

Material and technical base of the educational program:

For the implementation of the educational program, the faculty has laboratories that are branches of world famous IT companies and are equipped with modern installations, hardware and software:

- ✔ HP laboratory.
- ✔ Laboratory network equipment CISCO.
- ✔ Laboratory of technical security systems Perco.
- ✔ Laboratory of network equipment Alcatel.
- ✔ IS Security laboratory (Kaspersky).
- ✔ Laboratory of Computer Science.
- ✔ Student Innovation Laboratory for the design and development of advanced solutions in the field of Information and Communication Technologies.
- ✔ Laboratory "Intelligent Programmable Systems".

Levels of training:

Bachelor's degree
«6B06103- Computer engineering»
Master's degree
«7M06103- Computer engineering»
Doctor's degree
«8D06102- Computer engineering»

The objectives of the educational program

Bachelor's degree «6B06103- Computer engineering»
Providing high-quality training of qualified specialists in the field of computer engineering who are able to carry out professional activities in the scientific, industrial, government and teaching fields, as well as in the areas of software development and support, information security policies, artificial intelligence systems, robotics, computer systems and networks; promoting socialization, the formation of a common culture of the individual, informed choice and subsequent development of professional educational programs; providing comprehensive, high-quality educational and research opportunities for students; preparing students for careers as professionals capable of applying the latest information technology in the professional field.

Master's degree «7M06103- Computer engineering»
Formation of qualified specialists in the field of computer engineering, providing comprehensive high-quality educational and research opportunities for undergraduates; preparing graduate students for a career as specialists capable of applying the latest information technologies in the fields of science, management, teaching and developing software and hardware.

Doctor's degree «8D06103- Computer engineering»
Formation of qualified specialists in the field of computer engineering, training for doctoral students in the fields of distributed intelligent systems, advanced parallel programming, machine learning, artificial neural networks, mobile and wireless communications, computer communications networks, advanced cryptography, computer network security, FPGA design.

The main directions of scientific research are:

- Development of a system for extracting knowledge from heterogeneous data sources to improve the quality of decision-making.
- High-performance computing.
- Visualization of big data.
- Virtual and augmented reality (AR, VR)
- Building calculation grids.
- Modeling of oil field development.
- Processing weakly structured data.
- Big data Analytics.
- Programming on microcontrollers.
- Development of an intelligent high-performance information and analytical search engine for processing weakly structured data.
- Creation of high-performance intelligent analysis technologies and making decisions for the system of "logistics agglomeration" in the framework of the digital economy of the Republic of Kazakhstan.

There are the following types of professional activities:

- ✔ Programmer
- ✔ Software developer
- ✔ Web developer
- ✔ Game developer
- ✔ FPGA developer
- ✔ Systems analyst
- ✔ IT project manager
- ✔ Computer network architect
- ✔ Big Data analyst
- ✔ Computer systems analyst
- ✔ Virtual reality systems developer
- ✔ Augmented reality systems developer
- ✔ Mobile app developer
- ✔ Computer and information systems manager
- ✔ Scientific researcher in the field of information technology