

Hackathon winners at MLIT

On 4-8 July 2022, the Meshcheryakov Laboratory of Information Technologies hosted the winners of the “Digit.zone|Technological Modernization” hackathon in the “Information Processes” direction, organized by the “Dubna” Special Economic Zone in April this year. A team of students of the Institute of System Analysis and Management of Dubna State University got an opportunity for an internship at MLIT within JINR’s special prize.

The internship program was diverse and comprised excursions, meetings with the Institute’s specialists and workshops. The students visited the interactive exhibition “JINR Basic Facilities” that opened the doors to the fascinating world of science, told them about JINR’s history and activity, acquainted with the models of the Institute’s basic facilities and enabled to look inside the Laboratories using virtual reality technologies.

The students also visited the JINR Press Office, where Chief Editor of the JINR web site K.P. Moisenz talked about how the Institute’s scientific projects and achievements are now covered on different information sites, including social networks and messengers, while staff designers shared the secrets of their skills.

At MLIT, the students met with the leading specialists of the Laboratory, who are engaged in projects related to areas of the students’ interest, namely, programming, information system architectures, online data processing, computer design, machine learning. D.A. Oleynik spoke in detail about the processing of data from physics experiments using high-performance computing systems, touching upon the history of MLIT’s formation from bubble chambers and scanning machines to state-of-the-art data centers and grid computing. S. Hnatic in his presentation revealed the topic of software engineering on the example of developing scientific software for the MPD experiment at the NICA collider. A meeting with K.V. Lukyanov was devoted to web design and web site development, the trends and prospects for the development of web technologies. During a tour of the JINR Multifunctional Information and Computing Complex, the students learned about the tasks solved using the MICC resources, including on the “Govorun” supercomputer.

Within the internship, the hackathon winners participated in the sixth international workshop on Deep Learning in Computational Physics (DLCP-2022), which was held at MLIT in a mixed format and dedicated to different applications of artificial neural networks to physics problems and to the development of novel modern machine learning methods for data analysis.

One of the students, Diana Shiryeva, shared her impressions of the week at MLIT: “The internship at JINR flew by fast, leaving a multitude of emotions in each of us. Each day was filled with new information. The exhibition in the JINR Cultural Centre “Mir” spoke about JINR’s activity in simple words that would be understandable even to a child. In the MICC machine hall, we were told and shown how the volumes of information and the devices on which it was stored had changed with time. The “Govorun” supercomputer impressed with its power and technical esthetics. No less interesting were meetings with MLIT specialists, where ongoing projects were presented. A large number of reports related to machine learning were delivered at the conference. The internship ended with a boat trip and a barbecue in Ratmino. During this time, we managed to get acquainted and communicate with JINR staff members in an informal setting. It was a wonderful past time. Special thanks to the organizers and catering (the food was yummy)”.

It is noteworthy that starting from September, the students who won the hackathon will be able to join JINR’s projects that aroused their greatest interest.



