Institute of Computer Science and Control Systems
Control Systems and Technology Department

Experience Report

DAAD Scholarship

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Student Group: 13541/8

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Contents

Introduction

During the first semester I was at Peter the Great Saint Petersburg Polytechnic University. I was introduced to a new culture, Russia, and the beginning steps of the "International Mechatronics" program. In this semester, I along with my classmates focused on artificial intelligence related technologies and getting acquainted to life in Russia. Below is an image of myself at the Mariinsky theater as well as my classmates with our department head, Prof. V.P. Shkodyrev.

Figure 1: Group with Department Head

Figure 2: Christopher at Mariinsky Theater

Program - First Semester

Course Overview

The first semester focused on artificial intelligence. Artificial intelligence technologies are those related to making a machine that can learn and mimic human cognitive abilities such as perception, memory, logic, emotion, and reasoning. As such we took many classes related to these paradigms. During this first semester, we had 7 courses:

Figure 3: Studying Intelligent Systems

- Neuro-Informatics and Neuro-Technologies
- Intelligent Systems
- History and Methodology of Informatics
- Methods of Optimization
- Mathematical Modeling and Simulation
- Scientific Research Work
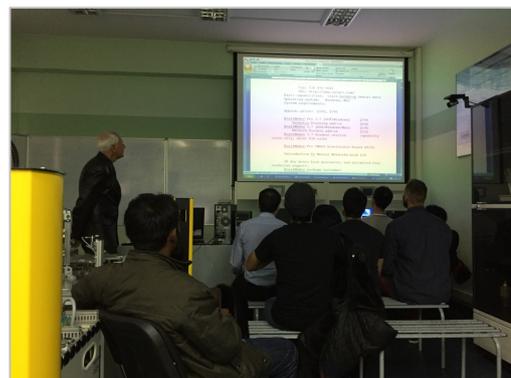- Software Development Technologies

I and two other students also elected to take the first Russian course on reading, writing, and speaking. As expected, this proved to be very helpful in everyday life.

Favorite Course

From these courses, I can say my favorite course was "Neuro-Informatics and Neuro-Technologies". This course focused on an introduction to neural networks and their applications. Having spent a significant time reading on this subject outside of the class, I have also decided to do my master's thesis in this area, which was previously explained in my scholarship application's motivation letter.
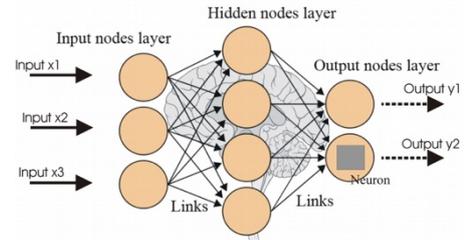

Figure 4: Example Neural Network

St Petersburg

One of the great benefits of this school is the location. As such a moment should be taken to discuss the beautiful city of Saint Petersburg. In just a few months, I have had the chance to see a lot. Thus far I have explored many streets and areas such as Nevsky Prospect, North of Nevsky area, the Loft Projects, Kazan Cathedral, St. Isaacs Cathedral, the State Hermitage Museum, the Ethnographic Museum, Kunstkamera museum, Peter and Paul Fortress, Vasileostrovsky District, and various Russian restaurants. Below are some highlights of the most interesting.

Museums

Hermitage Museum

My favorite experience so far has been the State Hermitage Museum, as it is a vast museum of many items, paintings, sculptures, jewelry, and weaponry. Additionally items are shown from many different cultures. I spent an entire day in this museum (10:30am until 9pm) without even a lunch break, and I intend to go back in the near future to finish. To the right is an image of the animated "Peacock Clock" wich is beautiful demonstration of mechatronics.

Figure 5: Peacock Clock

Kunstkamera Museum

This museum gave insight about various cultures around the world. The best part is that there are many artifacts and real items on display.

Theaters

I have a history with performance theater, hence I decided to visit as many of the theaters as possible. Here are a few of my favorite and the most famous. I had the chance to see three ballets and two musical performances.

Эрмитаж театр (Hermitage Theater)

Михайловский театр (Mikhaylovsky Theatre)

Мариинский театр (Mariinsky Theatre)

Group Activities

A major component of being at university is enjoying the time together with classmates.
Here are a few of the activities we did together, which will last as wonderful memories.

Latin Dance Event

Orchestra (White Hall)
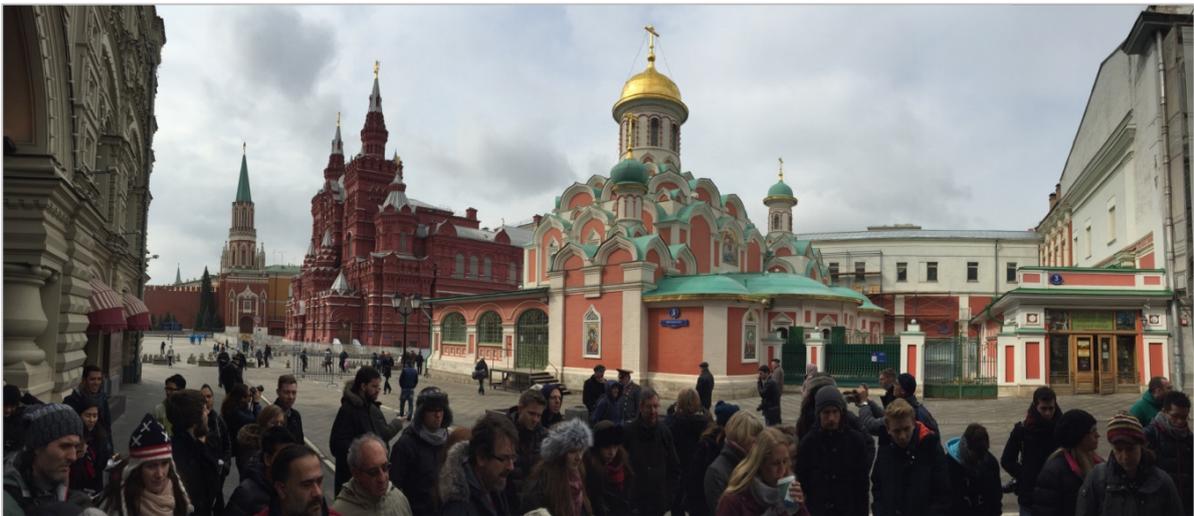
Halloween Party

Thanksgiving Dinner

Moscow

During the winter break, I had the chance to visit some of the major sites of Moscow.
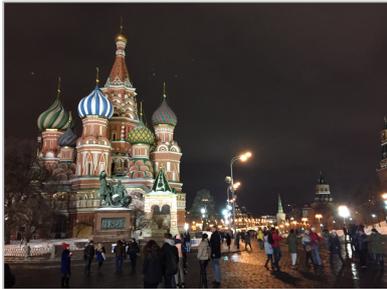
Christmas Market (at the Kremlin)

Kremlin/Red Square

Kremlin

Saint Basil Cathedral   **Prince Vladimir Monument**   **Cathedral of Christ the Savior**

Acknowledgement

Finally, I would like to thank the DAAD and the strategic partnership that exists between Leibniz University and SPbPU. Through this partnership, I have been given the possibility to spend more time dedicated to my studies and thesis work. I hope that this partnership and scholarship possibility can continue for future years and many other aspiring students.