

1 Overall impression of the research period

Following my predecessor, I was the second student of the Salzburg University of Applied Sciences to study at the Center of Intelligent Information Retrieval (CIIR) at the University of Massachusetts, Amherst. Amherst is a small city in Western Massachusetts. The city is mainly inhabited by students from the "UMass", Amherst College or other Colleges in the valley. It has a neat city center with a lot of international restaurants and cafes. Springfield, MA is the next bigger city. The closest airport is the *Bradley International Airport* near Hartford, CT.

With the start of the process of applying for this exchange, all the staff of the CIIR and UMass (International Programs Office, ...) were very helpful. No question was left unanswered and all my concerns were taken care of. All the administrative work was done at least two months prior to the designated arrival, which led to a stressless preparation.

The MPS gave me not only the possibility to learn a lot about my professional career, but it also gave me the chance to learn about the US, the culture and the people. I stayed in the US for 6 months, which gave me a lot of opportunities to explore the country. This was fostered by the faculty and the supervisor as well, as they provided a lot of recommendations for trips around the area and the East Coast. This support and the motivation that came along with it enabled me to invest a lot of work and effort in the progress of my research.

2 The Center of Intelligent Information Retrieval (CIIR)

As I have already known before my exchange, the CIIR is one of the top research facilities in the field of Information Retrieval. The Ph.D. students work together with other top-ranked institutions from well-known Universities and leading companies from the international tech market. Both faculty and Ph.D. students are very high-skilled, what really justifies their reputation. The students origin mainly from Asian countries. Iran, South Korea, China, and India are some of those. Interestingly, only two of the 16 Ph.D. students are American citizens. The infrastructure, that is provided by the lab really is state-of-the-art. There are a lot of GPU and CPU servers available to train all kinds of neural network models and process data for the purpose of research.

Right from the beginning, I felt very welcome in the lab. All staff and faculty were very helpful and equipped me with all privileges also Ph.D. students have. Full access to all resources, access to the lab 24/7 and supervision by the host supervisor. I was also to be expected to take part in the weekly lab meetings with all the students. For this, I was also allowed to present

my research once and to hold a workshop on "Optimization and over-fitting in Deep Neural Networks" with a Ph.D. student.

My supervisor at the CIIR, Prof. James Allan, really cared about all my affairs, as far as he was able to. On my first day, we already had a meeting to discuss the first steps. We met regularly to discuss my progress, where he came up with a lot of advice and suggestions for improvements to my research. Besides the professional part, he really encouraged me to travel a lot and even gave me tips on where to go to.

My supervisor at UMass and all the Ph.D. students were super friendly and open to all sorts of collaborations. This led to a project with a Ph. D. student, concerning an application on Natural Language Inference (NLI).

3 Recommendations for future MPS scholars

As mentioned earlier in this report, I experienced the organization at the CIIR and the University of Massachusetts as an excellent research facility. There is no need to provide any computational or research hardware by oneself. Everything is prepared and set up to one's needs upon arrival. If a student does not need a personal computer for its personal needs, the infrastructure in the lab is sufficient.

I recommend reading the fundamentals of Information Retrieval before visiting the CIIR. The book by the director of the CIIR Croft (2010) or the one by Manning, Raghavan, and Schütze (2008) gives a good overview on the field of research. Even if the own research topic is not directly concerned with Information Retrieval, during presentations of Ph.D. Students or while chatting with them it is much easier to follow. In addition to that, as the faculty focuses on these topics, the direction of the own research will tend to go into the field of Information Retrieval.

If a student was aiming for an academic career, I highly advise all future visitors to talk to all the Ph.D. students and learn from them. They do have an immense amount of knowledge in the fields of Information Retrieval, Deep Learning, Natural Language Processing, and research in general. It is also a good possibility for networking and future collaborations.

4 Contact Information

Host Institution	Scholar
Center for Intelligent Information Retrieval College of Information and Computer Sciences	Martin Uray

5 References

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