

Personal Report

Research Project at the University of Massachusetts Amherst

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Introduction

Stefan Wegenkittl, my supervisor at the University of Applied Sciences Salzburg (SUAS), offered me the opportunity of writing my Master's thesis at the University of Massachusetts (UMass) Amherst with one of the leading research groups in Information Retrieval (IR). Thanks to the Marshall Plan Foundation, I was able to seize this great opportunity. I was working in the Center of Intelligent Information Retrieval (CIIR), which is part of the College of Information and Computer Science (CICS). My supervisor on site was Distinguished Professor W. Bruce Croft, a recognized expert in his field and director of the CIIR.

Overall Impression of the Research Period

Researching at the CIIR was a very revealing and interesting experience for me in many ways. The resources and working environment provided by the CIIR, allowed me to develop new skills and gain valuable insights into the versatile research field of IR.

It was very interesting for me to experience the processes and challenges involved in research myself and learn first-hand about the scientific approach to problem solving. The guidance and support of the CIIR group and especially, W. Bruce Croft and Hamed Zamani helped me in overcoming many of the challenges I faced.

Quality of the Research Institution

UMass Amherst is the largest public university in New England. The CICS, which is part of UMass Amherst, is a well-known and excellent institution. It offers some of the highest ranked graduate programs in the US and is also recognized for its research activities. CICS hosts several research centers and labs. Its research areas range widely, covering fields like autonomous learning, computer vision and cybersecurity. CIIR, one of the research centers of the CICS, constitutes one of the leading research groups in the field of IR.

Bruce Croft, the director of CIIR, is a well-known researcher and expert in IR with a special interest in search engines. He was my designated supervisor on site and provided me guidance and advice in my research.

During my stay at CIIR, I had access to state-of-the-art research and literature as well as to computational resources like their GPU cluster. This was very helpful in elaborating the theoretical background of my research topic and then, putting it into practice.

Integration in the Research Institution

Within the CIIR department, I shared an office with other graduate students, who researched on various problems in the field of IR like controversy or question answering. This working environment promoted the exchange of experiences and knowledge, thereby building a supportive habitat for my own research. It also allowed me to get to know the common challenges associated with IR research.

Hamed Zamani, one of W. Bruce Croft's graduate students, was my point of contact within the office. His research focuses on modeling core IR problems using neural networks. With his support, I was able to successfully incorporate my research topic (sentiment analysis) into the IR research field (ranking).

On a regular basis, the CICS hosted talks of internal and external researchers. This was always a great opportunity to take a peek on other research fields.

Recommendations for future MPS Scholars/Fellows

I can highly recommend a stay at the CIIR, respectively any research center and lab hosted by the CICS. The researchers at CICS rank among the leading scientist in their field of work. Being integrated in the constructive and innovative environment they create offers many possibilities for personal and professional development. I myself profited a lot of the present expertise and knowledge at CIIR.

Besides the experiences on professional level, I can also recommend the cultural experiences offered in Amherst. Amherst is a really small town, but there is still plenty to see close by. I really enjoyed visiting the museums in the area like the Eric Carle Museum or the Beneski Museum of Natural History at Amherst College. Using a bike one can easily reach Northampton, a nearby town, on the Norwottuck Rail Trail. This trail leads also through a wonderful landscape, when driving in the opposite direction.

It is also easy to visit cities like Boston and New York, which is a nice diversion from the small town life in Amherst.

As a woman, I had the chance of joining various events offered by the Round the World Women Group and would strongly advise any future female MPS Scholar to seize this opportunity. On a weekly basis, this group organized excursions to all kinds of local attractions. Attending these events allowed me to conveniently explore the area around Amherst and get into contact with women from all over the world, who worked in all kinds of fields and currently stayed in Amherst.

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