

Travel Report: University of Virginia

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1 Motivation

In the spring of 2007 I was given the opportunity for a five month visit the Department of Computer Science at University of Virginia (UVA). The Control Research Group has a long history of research in real-time databases, which is also the area of my thesis. Professor Sang H. Son acts as my thesis work co-advisor, and when the opportunity for a long stay came up, I was not late to respond to it. The aim of the visit was to continue pursue scalability problems in distributed real-time databases, to get extended advisor time, and to apply constraints given by Wireless Sensor Networks to my scheme for Virtual Full Replication in distributed real-time databases.

2 Research

The Control group is currently one of the strongest research groups in the world working with Wireless Sensor Networks (WSNs). The group consist of about 30 people, with three faculty people, a small group of post-docs, and PhD students.

The PhD students in the Control group work hard and long hours, although my impression is that they start later in the day compared to Europeans. The pressure to publish is very strong, and the support from the group in doing so is very elaborate. All known potential submission sites and dates are clearly communicated in the weekly meeting, and faculty is very direct and clear with which people may submit at the proposed dates. It is then up to the individual to take action to participate in tasks and work groups to get publications. In such groups, collaboration and effectiveness is emphasized. The work is shared and everybody is expected to contribute.

Faculty and advisors are highly involved in details of each student's work, and very distinct and supportive in their feedback. The feedback I got helped me a lot in focusing my research issues, approaches and evaluations. It is clear in the group that scientific work need to be highly interesting and bring novelty to excel in the competitive research world. Thus, both substance and presentations are usually of very high quality.

Often project work is connected to concrete usage scenarios, where the funding points the research in some direction that is useful for the funder. Projects and funding have a shorter time span, and requires more clear concrete results in terms of demonstrators and solutions. My impression is that American pragmatics plays a central role here. American PhD student conduct experiment and write papers. They are lightly or not at all involved in other department tasks or teaching. It is always a Professor that lectures at all course levels.

My impression is that every person need a very high personal motivation for his own success for driving his own progress forward. This is of course true for every PhD project, but the American self-made man attitude is very present, and also necessary. The PhD work is probably harder in the US, but also more rewarding. It is hard to think that US PhD student have much family life during their PhD project years.

3 Environment

University of Virginia has a long history and was founded by President Thomas Jefferson. People are, and should be, very proud of his heritage. The University and the surroundings are very nice and Charlottesville has been appointed the best place to live in the US, for several years. UVA is a large University with their own Police corps, Daily newspaper, and a Bus system. The transport and parking organization is large, since parking is an important issue due to limited parking space and the fact that most people drive to work. Living at the city border, commuting by bus from home was not possible for me. I got a parking permit for 'Blue parking' a mile away from the office, with a free 15 minute bus ride both in the morning and in the evening.

Americans are encouraging people. Most people in Virginia are very nice and open to others. Attending a church is very common and also quickly gives a social network that brings much good, in particular for me who went without my wife and children.

4 Results

During my stay I wrote two papers, which were accepted at RTCSA'07 and ECRTS'07 (WiP). The latter gave a de-tour to the ECRTS conference in Pisa, Italy, on the way back home from the visit. The papers published will be an important part of the substance of my Thesis.

During my stay I also got help in forming the Thesis layout and how to best use the content. The extended advisor time helped me found out the remaining work needed, and the time frame for it.

At the end of the visit I got the opportunity to visit George Mason University in Fairfax VA, to present the Information Fusion profile at University of Skövde together with Per Gustavsson from SAAB/University of Skvde. The presentation was well appreciated and is now available online (a pointer is given

on request).

5 Conclusions

The visit to University of Virginia has been very useful for me. The cost of administrative time to fund, setup, and actually carry out the trip with all the practical issues involved has been well spent in my opinion.

I have got a good time in Charlottesville, giving me many new friends, time to polish my (American) English, and invaluable experiences of seeing the American culture from the inside. I have learned to appreciate the US more, and I have seen how focused hard work pays off well in that society.

Finally, this trip gave my PhD work a good push forward, with two new publications accepted, and a good Thesis structure. The effort and the funding spent was well used and payed off for me.