Co-op Job summary

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Co-op Work Assignment

What were technical functions of your working group and what was its relationship to the general organization of the company?

I interned with the Risk Analytics group which is a subgroup of Prime Brokerage technology within Morgan Stanley. My group is responsible for sending out detailed risk reports to investors (mostly institutional investors and hedge fund) on a daily basis so as to help them analyze the daily risk associated with their portfolios. One of the most important values that we reported was the VaR (value at Risk). A daily VaR indicates with 90% or 95% confidence the maximum amount of money that could be lost during a day due to market fluctuations. My group also supports a web application that allows clients to customize the way they analyze risk of their portfolios.

The risk calculations are done by crunching through vast amounts of data stored in huge databases. We obtain this data from both internal as well as external sources. SQL stored procedures are used to query the databases and Crystal Reports is used to generate the paper reports in the form of a PDF file. However, the web application used Java based database access tools (for example, JDBC) to compute risk values on demand. In order to achieve better integration with the web application, the group wanted to use Java based database querying protocols to generate even the paper reports. Essentially, my group wanted to streamline the process by essentially having a single protocol to access the databases.

What major projects or activities did you work on?

My project was to get rid of SQL stored procedures and replace them with “equivalent” XML files that could be fed as input to the Java based database querying application. So, I spent a lot of time trying to “translate” SQL to XML.

I also did a mini project where I added a couple of small features to an external web application used by MS clients. It was done using JSP and javascript.

How was training provided?

Before the interns got started on their individual projects, there was a 4 day long orientation program for interns. It was a good opportunity to network with interns from various other universities. We also had many talks where we learnt more about the company, both from a technology and a banking perspective. There were no group technical training programs, but my group guided me quite a bit and recommended some readings to help me get started.
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*Did you have an assigned mentor? Who did you generally approach with questions?*

I was assigned a mentor and a supervisor. Both my mentor and my supervisor were very helpful and very approachable. I could always talk to either of them about any of the problems I was facing.

**Assessment of Learning and Development**

*What is the relationship of your work activity to your educational background and career interests?*

I am interested in concepts like artificial intelligence and data mining. I got interested in a financial firm like Morgan Stanley simply because they are engaged in Algorithmic Trading, which means that they write intelligent computer programs that trade on behalf of the traders. But, unfortunately, I did not get to work on any of these or related areas during the course of my internship. My group did a lot of “support” technology for the business.

*What did you learned about the profession of Engineering and professional culture?*

I learned about many interesting differences between the classroom and a professional work environment in a rather interesting way. I realized that people in the workplace (this is especially true for the financial industry) are more concerned about the product than the process. I also learnt the art of communicating effectively in a professional and corporate environment.

**Life Outside of Co-op**

*What recommendations do you have for finding housing in the area?*

Housing in NYC is expensive and very hard to find. So, one should get started really early. I would recommend trying to find in a place in one of the NYU or Columbia dorms. They are really nice and some of them are situated right in the heart of Manhattan. Also, since these dorms are full of summer interns it is easy to find people to hang out with.

*What do you recommend for transportation?*

Get a monthly subway pass. One can’t survive NYC without that.

*What opportunities exist for social activities?*

NYC is an amazing place to have fun if you form a good social group and you are above 21. I missed out on many social outings with my team and friends because I was not 21, nor did I have a fake ID.
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Did the employer offer opportunities for community service or athletics?

We did a day of community service as part of one of the intern activities that Morgan Stanley organizes. We visited a child care center in Westchester, NY and helped the staff paint the walls, wash the floors etc.

A gym membership to New York Sports Club was offered to the interns at the corporate discount price. MS also planned a lot of fun activities for their interns. They included an MS sponsored broadway show, a tour of the NY stock exchange, a trip to Six Flags, fine dining etc.

Evaluation

What were the best features of this job and why?

Spending a summer in NYC can never be a bad idea. The city is an amazing place to expand your social, cultural and professional horizons. The location of the job was definitely a big factor for me when I was choosing between offers.