

FedEx I.T. Internship

Acknowledgements

I would first like to acknowledge Robert Minford, my manager and the Managing Director of FedEx Services I.T. Pittsburgh. Bob hired me last summer as a first year intern, and was pleased enough to have me back again this summer. Although he has a very demanding schedule, Mr. Minford always found time to show me the ropes, especially the business aspects of FedEx. Secondly, I would like to acknowledge Mr. Tom Bodnovich, my internship advisor; Dr. Karen Duda, the chairperson of the Computer Science Department at YSU; and Debbie Moy and Gwenn Clark from the Professional Practice area at Youngstown State. At first, I didn't know that internships could count as school credit. Because I obtained the internship before I realized this, we as a group had to scramble to get everything signed and squared away. Thirdly, I would like to acknowledge the team I worked with, especially Patrick Eannace and Natalia Kott. They both took time away from their projects to explain the details of software development and testing, and I learned a great deal from both of them.

Finally, I would like to acknowledge FedEx as a company. Throughout the past two summers, FedEx has treated the other interns and me as normal employees, and in some ways, even better. We were always invited to Kickoff rallies, planning meetings, award ceremonies, Pittsburgh Pirate Employee nights, and other events. We were also showered with many useful gifts such as FedEx tote bags, book bags, organizers, and other FedEx brand items. The stereotypical intern is used to make coffee runs and complete tedious busy work, but since day one at FedEx, I always felt like part of the team and that my contributions were valuable to the company.

Introduction

I am currently a senior Computer Science major at Youngstown State University. At the conclusion of the Spring 2002 semester, I obtained an internship with FedEx Services in Pittsburgh, PA. This internship lasted from June 2 through August 15, 2003 and I learned a great deal from my summer experience. Towards the end of my junior year, I decided to apply again with the same team,

and was rehired for a second internship this past summer. I plan to graduate from YSU after the Spring 2004 semester with a Bachelor's Degree in Computer Science and a minor in Mathematics.

Company/Agency Description

FedEx Corporation is actually made up of 6 sub-companies. They are FedEx Express, FedEx Ground, FedEx Services, FedEx Trade Networks, FedEx Custom Critical, and FedEx Freight. The FedEx Ground Headquarters building in Pittsburgh actually houses parts of 3 FedEx companies (mostly Ground, with groups of Services and Express).

My internship was with FedEx Services, which provides I.T. support to the other companies. My boss, Robert Minford, is Managing Director of I.T. Services in Pittsburgh, but is also the manager of the Customer Service Systems team that I work for. This team develops and supports software and various applications used by the FedEx Customer Service groups throughout the world. FedEx offers exposure to real life projects, using the latest leading edge technology products and methods. Interns employed by the company work on real applications and projects, with real milestones and deadlines. Ranked in many Top 10 Company lists, FedEx is a leader in the transportation industry and one of the country's most progressive employers.

Position Description:

Within my actual FedEx job description, there are three learning objectives along with duties and responsibilities that were originally set-aside for me. Through this internship, I was to devise procedures to solve systems and application problems, prepare specifications, and assist in fact-finding to develop and modify programs. Some of my initial duties consisted of coding for small projects, working on a training database application for the Services intranet site, and to be part of the system

cycle of project development, testing and implementation. Of course, as the summer progressed, jobs were added and changed, and I ended up with a large responsibility as far as the development, testing, and implementation of new revenue software for customer service systems.

Internship Experiences:

The first few days at FedEx were spent setting up my computer, my Lotus Notes, and my access to various internal drives on the network. We had a few intern orientations where we were shown the building and various parts of the company, and a few lunches where we met managers and other FedEx employees.

My first task was to contact all the customer service managers in the U.S and Canada and create a list of reps that no longer should have access to an old application. The team I work with developed a new application that was finished and implemented last year. Since that time they have slowly phased out use of the old application and it had finally gotten to the point that the old application was no longer needed except for a few rare instances. I created a list of over 1,000 users, obtained the login and password information for each user, and took this list to I.T. security to have these ID's deleted. This task was basically just to get my feet wet. I wanted to contribute more to the company, and it wasn't long before I was playing a crucial role in the implementation of new software.

Over the next month of the internship, I had other small projects, including flowing COBOL programs to see if they could be reused in a different area. I had no prior knowledge of this language, so I spent many hours in the FedEx library reading COBOL books. I also updated the websites I had created, and had the new pages promoted to the server.

During the third week I was pulled into a project involving the reuse of code to break up a list of reports and send them to the correct terminal. A program already existed that had this functionality, but it used specific headers on each report to determine how the spool was broken apart. My job was to determine how this happened and the exact format of the header. The reports were being generated in

Memphis (FedEx headquarters), sent to a Pittsburgh based machine, and then read into the program to be dispersed. I soon found how difficult it was to relay information and requirements over the phone and through email when two teams couldn't talk face to face. However, the issue was resolved, the code changed and recompiled, the spool of reports had the correct headers, and we had a successful test run of the application.

The team of developers had been working hard over the past 5 months to rewrite 40,000 lines of VB code in Java. During the fourth week of my internship, the final build was completed, and my job was to be one of the main internal testers. However, because this software was rewritten from an old application, I could only compare screens and data and some functionality. I had no business requirements document to test against. This wouldn't be a problem for my testing, but it would prove to be a large problem down the road with the revenue testing team in Memphis. They had designed their 2,400 test scenarios from the business requirements document, or BRD, which was written after coding had already started. The developers did not code from the BRD, they coded from the old application, so many discrepancies would arise between the two, and this would make my job as the organizer and distributor of the CRs (or problem logs) very difficult.

After another week of testing, my boss was taking the application down to Memphis to give a demo to the team that would soon be testing it. Because I had become very familiar with the software and its functionality, he wanted me to come along for the day to help out with the demo and set up the application on the test computers. As I mentioned before, FedEx Services develops software for all of the FedEx companies. Since FedEx Express is based in Memphis, the testing team also resides there at the World Tech Center, so this is where the testing had to take place.

The trip to Memphis was very successful. All in attendance were impressed with the functionality of the new application and we were able to install the software onto the test computers with no problems. After we met the testing team, Bob decided it would be a good idea to have face-to-face contact with them for a few days every other week. He wanted to take a developer with him each time he went in case any coding issues needed to be resolved on the spot. However, the first week he went, he took me along with one of the developers.

Our flight got in Sunday night around midnight and we were there in Memphis helping the testing team until Wednesday afternoon. It was quite an experience. I helped with some of the testing, kept track of the problems they found, and relayed them back to the appropriate developers in Pittsburgh. Another aspect of my duties down there and up in Pittsburgh was to coordinate “pushes” or migrations of the updated version of software that included the fixes for the problems the team was finding. Aside from the business part of the trip, I was able to have dinner with Bob, the other developer Pat, and the vice-president of FedEx Services, Scot Struminger.

We accomplished a lot while we were down there and Bob was pleased with my contribution. Because of the problems that the testing team was running into, and his busy schedule, Bob decided to send me alone the very next week for three days to continue to work with the team. I was surprised with the amount of confidence, energy, and money Bob was investing in me for this project. FedEx covered my hotel, rental car, flights and food during the trips to Memphis, but he was sending an intern to coordinate the testing, and it made me feel like I was contributing a lot to the company. The third trip to Memphis was also a success, and we continued to do pushes of the latest updated fixes to the testing PC's so that they could continue with their scenarios.

The last week at FedEx was spent testing pushes as they were sent to the testing team. Because these normally didn't go through until after the Memphis team was finished with the software for the day, the push didn't usually happen until 5 or 6 EST. After I was notified that the push was successful, I would VNC into one of the machines down in Memphis, and test each of the CR fixes that were involved in the latest version. This made for very long days, but I actually enjoyed the work. Two of the days during the final week, I was at work from 8 AM until 8:30 PM. I was able to confirm which CRs were actually fixed and which ones would be reopened, and I was able to give the developers an entire day heads up as to what to expect.

I felt that my courses at YSU had me well prepared for the type of work I experienced during my internship. The one course that stands out is Software Engineering, which I took this past spring semester with Dr. John Sullins. In this course, we as a class worked as 2 teams, designing and creating software for a customer. We learned about requirements documents, having a working relationship with

the customer and end user, and working as a team when building a Java application. All three of these items were extremely evident here at FedEx. My other courses prepared me for the programming aspects, but no course prepares you for the actual I.T. work experience like Software Engineering did. Courses like Software Engineering have a broad application for all graduating students looking for computer or I.T. related jobs. As a whole, my YSU education had me ready to tackle almost any job they put in front of me.

While my education provided the strength of business relations and knowledge, my weaknesses during this internship would have to be my knowledge of Java. I know I came in during the last month of a five-month coding process, but I wish I could have contributed more as far as developing the software and writing code. I think it was just the circumstances and timing of my internship that didn't allow me many opportunities to code, so my weakness is not due to my YSU education. I have taken the Object Oriented Java course with John Sullins and I am signed up to take Advanced Java with Sullins this upcoming fall semester. I hope that this weakness can become a strength so that when I enter the workplace after I graduate, I will have both the business knowledge and coding skills to be a proficient employee.

Conclusion:

I wouldn't trade my internship this past summer for any other opportunity. I learned so much in three short months. Both my manager and the entire team were always ready to help me understand everything, and they always took time out to teach me little things here and there. FedEx is a fantastic company to work for. The company continues to grow year over year, the employees are all great people to work with, and the technology and work experiences are first rate. Looking back, I would've accepted this internship even if there were no monetary compensation involved. That's how valuable my learning experience has been this past summer. My internship allowed me to apply what I've learned the past 3 years at Youngstown State, and also provided me the opportunities to learn and develop as an employee.

Future Learning:

After spending two summers at FedEx, I realized that coding and developing software was great, but why not manage that? I think it would be interesting and exciting to be the head of a team effort, coordinating and working both sides of a problem to get the desired result. The balancing act between being a good, demanding manager and a difficult, pushy manager makes management courses necessary. Once I graduate, I may try and get my feet wet as a developer first, possibly here at FedEx. However, I would eventually like to earn a Master's Degree and take management courses. My education at Youngstown State and my experience at FedEx have provided me with a strong base to build upon.

Appendices:Work Schedule

My internship started June 2nd and lasted through August 15th. I worked at least 40 hours a week, often longer.

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