Faculty Professional Development Grant
Final Report

Grant to Attend Conference: "Visual Studio Live"
May 13-15, 2013, Chicago, IL

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by

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Professional Enhancement Opportunity

B. Restatement of problem researched, creative work, or _professional enhancement opportunity_.

I received a professional development grant to attend a conference covering current software development issues and techniques, data analytics, and business intelligence tools. The conference was titled "Visual Studio Live" (http://vslive.com/events/chicago-2013/home.aspx) and was held from May 13-15 in Chicago, IL. My objective was to prepare for teaching a course in programming for the new Business Data Analytics major in the College of Business as well as to learn current industry trends to assist in further development of the curriculum in this emerging field.

This conference included a one-day workshop on the newest version of Visual Studio 2012 and on building Windows 8 applications. Tuesday through Thursday offer various seminars on developing applications with Visual Studio for touch-enabled phones, tablets (using Microsoft Windows 8, Google Android, and Apple's IOS), and websites in Visual Basic, Java, and HTML5, and interface features such as tiles, notifications, and finger swipes. Some sessions include using Microsoft's cloud service, Azure. Other sessions covered databases, including non-relational databases for holding 'big data', such as Cassandra and MongoDB.

C. Brief review of the _professional enhancement opportunity_, creative work, or research procedure

On the first day of the conference, I attended the all-day (9:00-6:00) workshop titled "Build a Windows 8 Application in a Day". The workshop was a thorough introduction to the newest version of Visual Studio (program development environment) and programming for the Windows 8 operating system for the Windows Phone, Surface tablet, and desktop environments.

Conference sessions ran from 9:15 in the morning to 6:00 pm in the evening with keynote speeches from 8:00-9:00 on Tuesday and Wednesday (Jay Schmeizer, "Visual Studio, .Net and the Cloud" and Craig Kitterman, "What can Cloud Do for YOU? Build Better Applications, Faster").

I attended a session at each time block on Tuesday and Wednesday and until 2:30 on Thursday at which time I left for my flight. The sessions I attended included the following topics
- Windows 8 Development with WinJS (javascript)
- Windows 8 Style – design essentials (UI, the new user interface formerly known as Metro, including finger swipes)
- Big Data – BI Fusion, Microsoft HDInsight and BI (partial session)
- Team Foundation Server 2012 (software that supports building applications in large teams)
- Mongo (NoSQL database)
- Cassandra (NoSQL database)
- Software development in Azure (Microsoft's Cloud service)
- Connecting to data files from Windows 8 phones
- Collaboration in Office 2013, Office 365, and SharePoint 2013

- XAML (web development language)
- Developing for iOS (iPhone and iPad; apps can be developed in Visual Studio for this platform)
- Virtualizing desktop apps and side-loading Windows store apps in Windows 8
- Visual Studio LightSwitch

The breaks and lunches provided throughout the conference offered useful professional networking opportunities. I think I was the only academic attending the conference. I was able to discuss software development trends with professionals from around the country in a variety of companies, government agencies, and non-profits. I was also able to talk with representatives of the vendors who sponsored the conference (Microsoft, TechSmith, CA Technologies (formerly Computer Associates), ESRI GIS software, FatCloud, Security Innovation, and the Code Project).

D. Summary of findings, outcomes, or experiences had

This conference was an excellent opportunity to update my understanding and skill with Visual Studio. I have taught advance programming techniques in this environment, but two very different versions have launched since I last taught with this tool ten years ago. Students in my BDA 3003 Data Analytics Apps Development course this fall have already benefitted from my conference experiences. I learned about UI (the new Microsoft user interface in Windows 8) and how to new design for these applications. I also learned how to write an application and then compile it for three smartphone and tablet environments: Microsoft's Windows 8, Google's Android, and Apple's iOS. The conference provided a digital copy of all the sample code used in the conference.

I learned more about how to submit apps to the Microsoft store. It became obvious that distribution of software in Windows 8 will be radically different from Windows applications in the past. Microsoft is attempting to control the quality and security of software as much as Apple controls software for the Mac and iPad. In the past, anyone could develop and distribute applications running on Windows desktops in any way they wished. In Windows 8, all applications must be submitted to the store, tested against standards, and then distributed from the store. This approach even applies to organizations engaging in internal development. I am skeptical that Microsoft will be able to control code distribution in this fashion indefinitely.

The conference gave me an introduction into designing, building, and using the 'big data' Mongo and Cassandra databases. These NoSQL databases are the most significant new database organization technique since the development of relational databases. Most of the NoSQL databases are now open source but were developed by companies such as Google, Facebook, and Amazon. Clearly, we will need to include NoSQL databases in the BDA curriculum at some point.

E. Conclusions and recommendations

I will be much more up to speed on how to use Visual Studio in the BDA programming course. This information provided at the Visual Studio Live conference will directly benefit our students as well as myself. I learned how students can write code and submit it directly to the Microsoft

Store for vetting and publication. Students could earn money from this process if they have a good idea and execute it well so that the public wants to purchase their 'apps'. Our students would not be charged a licensing fee because the College of Business subscribes to Microsoft DreamSpark, where students can get a free copy of Visual Studio. In addition, I will be able to share the sample code from the conference with my students and colleagues.

I learned that java and XAML and HTML5 currently appear to be the most popular languages among those represented at the conference. This leads me to consider using java in the next BDA programming course.
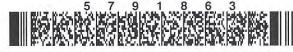
The Visual Studio Live conference was full of opportunity to learn and to network with software development professionals. There were too many sessions I had to miss because they were held at the same time as other sessions I needed to attend. Several of these conferences are held each year in different locations around the country. I could attend another of these conferences and still learn as much new material as I learned from this one. I highly recommend this conference to any IS or BDA professional.

Visual Studio LIVE!

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