USF
UNIVERSITY OF SOUTH FLORIDA
COLLEGE OF BUSINESS

Bits & Bytes

The newsletter of Information Systems & Decision Sciences

Summer 2008

Chair's Message, Kaushal Chari

The Information Systems & Decision Sciences Department (ISDS) is committed to providing quality education to students, a vision shared by all of our truly dedicated professors, despite the substantial budget cuts we, and the university, have faced recently. We've increased class sizes and have fewer resources available due to budget cuts, but we continue to move forward.

In the first six months of this year, ISDS department hosted a variety of events, including:

- **Java for Business Critical Systems** – a five-day class on java in March, which was well attended by industry participants.
- **Business Intelligence Summit** – a one-day event in April, which was attended by BI practitioners from the industry.
- **Open System Services Class for HP Non Stop platform** – a four-day class in partnership with HP in May.
- An Industry Panel in partnership with MIS Society titled: **"IT Career Opportunities in 2008"** in March. The panelist included distinguished IT executives: Arnie Bellini, CEO Connectwise; Gary Henkel, Vice President, Time Customer Service; and James P. Meinen, Vice President, JPMorganChase Check out the webcast at http://coba.usf.edu/departments/isds/index.html

Our program is growing. The enrollments in the upper level MIS undergraduate classes in Fall 2008 were significantly higher compared to Fall 2007 enrollments. There's more good news, too: many recent grads snagged well-paying jobs.

Alumni support, both in kind and financial, has been growing, too. For example, alumnus Marc Blumenthal provided our project management students, access to online courseware for free. Thanks Marc, for making this possible. As we move towards our goal of becoming one of the top MIS departments in the nation, such support is important.

Financial support is important, too, as in the face of budget cuts, have more expenses we must cut, or bear at the departmental level. Lab fees collected from students help, but these fees don't fully cover expenses such as the $8,000 annual subscription for SAP software used in various ISDS classes.

We are seeking gifts from students, alums, and friends to sustain our quality teaching and research programs. Any gift that you give to the ISDS Department will be highly appreciated. More details on how to donate can be found later in the newsletter.

Also included in the newsletter are several interesting articles and spotlights. Alumna Dar Isler provides a glimpse into her IT career and we have spotlighted a well-respected and well-known professor, Terry Sincich. Be sure to check out the story about star student Sean Smoley. You will also find a summary of a research article co-authored by professor Ellis Blanton, too.

Happy reading!

Cordially,

K Chari

Kaushal Chari
Professor & Chair
ISDS

Contents

Faculty Focus

Terry Sincich

Professor Terry Sincich has, perhaps, taught more students than anyone else currently teaching in the ISDS department, especially since his statistics-2 class is taken by all business majors. One colleague recently commented on Sincich's classroom style, saying, "he makes statistics relevant, timely, interesting, and understandable." Newsletter editor Manish Agrawal sat down with Sincich to find what drives this phenomenal statistician who is also a student-driven instructor.

Tell us a little bit about yourself.

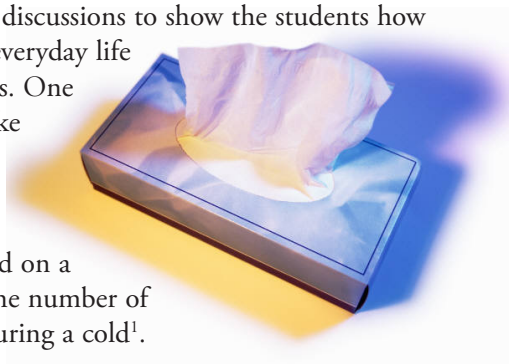
I joined USF in 1988. I completed my PhD in statistics from UF in 1980, and had been teaching and consulting there during 1980-1988. When a full-time research and teaching position opened up at USF, I pursued the opportunity.

My undergraduate degree was from Grove City College in Pennsylvania, where I was a math major. Math always came easy to me, but as I progressed in the major, it was hard for me to get excited about abstract algebra, ring theory, etc. During my junior year, I enrolled in the only statistics class offered in the entire undergrad curriculum. I found it very exciting as the course exposed me to the power of statistics – how statistics allows you to paint a picture with data for making decisions. It was then I decided to go to grad school to pursue my interest in statistics further. As I looked around at schools, UF had a great reputation and great weather (not to mention big-time college football). The first year at UF, I supported myself with a TA-ship. When I found that I actually enjoyed teaching, the idea of becoming a college professor was appealing. That set me up on the career path I am still following.

How do you integrate teaching and research activities here?

In 1988, the emphasis at USF was clearly on teaching. Over the years, this emphasis has shifted and the focus now is clearly on research. Research projects give me the opportunity to learn and refine statistical techniques that I can then introduce in my classes, especially in the statistics doctoral seminar. For example, in 1989, I worked on a research project on job turnover with Dr. John Jermier from the management department. The paper required us to use Structural Equation Modeling (SEM) – at that time, a technique that very few researchers employed or even understood. This opportunity allowed me to introduce my doctoral students to LISREL (the first computer package for running SEM). More recently, in doing some consulting with Stetson Law School, we've employed logistic regression – another topic in the doctoral seminar – to find the best predictors of incoming students passing the bar exam.

Similarly, I am always looking for interesting examples for my textbook. These examples make it into my undergraduate class discussions to show the students how statistics is used in everyday life as well as in business. One case I particularly like is how Kimberly-Clark decided to put 60 tissues in a box of Kleenex based on a statistical study of the number of tissues people use during a cold[1].



You have written popular textbooks on statistics. Tell us how that came about.

First, I was very fortunate, because during grad school at UF, my two mentors – the chairman of the department and my advisor - started a new statistical consulting company. One of the focal areas of the company was education. This group decided to bring out a new statistics text. The differentiating factor of the text would be its practical focus. The hope was that both students and professors would find it exciting. I was hired to find material for examples, and wrote them as case studies. My mentors liked my style so much that, upon my graduation, they invited me to be a co-author[2]. I was only 27 then; and now I am co-author on three other statistics textbooks.

You are one of the best known faculty members in the department, thanks to your TV-teaching methodology.

1 Why Do Hot Dogs Come in Packs of 10 And Buns in 8s or 12s?; Often With These Questions, The Reply's Just Because; As for Oreos, Don't Ask Why Do Hot Dogs Come in Packs of 10 And Buns in 8s or 12s? John Kotten, Wall Street Journal, Sep 21, 1984

2 Statistics for business and economics, 10th ed. (with J. McClave and P. Benson). Pearson, 2008

Tell us about it.

When I was teaching at UF, they had already started the practice of delivering all core undergraduate classes through TV-replay. Their philosophy was to put the best professor before a live class, record the lectures and play them back for all other students. I enjoyed doing it.

When I was interviewing for the position here at USF, I discussed this with then department chair John Hodgson and "recruiter" Murray Cohen, who were absolutely excited by the idea. At that time, the introductory business statistics classes at USF were being taught by ten different professors each semester, which lead to inconsistencies in the sections. So, when I came on board here, I was given three missions: teach doctoral students in the college, provide research support (through co-authoring papers) with other professors across the college, and TV-teach the introductory undergraduate statistics class. The TV delivery of Business & Economics Statistics II started in the 1989.

Each semester, I present the lecture in a classroom studio to about 40 students. The class is conducted as usual – during the lecture students can ask questions and interact with me. The lecture is recorded and replayed to the other approximately 900 students who attend regular sections. Every recorded lecture leaves about 10-15 minutes at the end for questions. There are TAs in the room to answer any questions students might have about the lecture material, and a "Stat Lab" is open all day Monday through Thursday for students who need tutoring.

The live class is held at 8:00 AM on Mondays and Wednesdays. The TV classes are scheduled for later in the day on Monday/Wednesday and on Tuesday/Thursday so that any technological glitches can be addressed by the time the class is scheduled.

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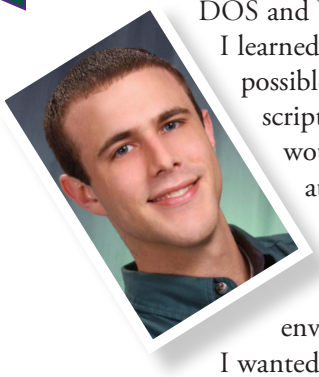
Questions *and* Answers

Student Focus: Sean Smoley

We asked Sean Smoley, one of current students, to tell him a little bit about himself, and his reasons for choosing to pursue an MIS major.



I've been interested in computers since my parents bought our first computer in the late 80's. I would tinker with file and menu systems within early versions of DOS and Windows. I learned it was possible to write scripts that would help automate tasks within the environment. I wanted to learn even more about their inner workings.

In middle and high school, I competed in programming competitions. Each team was given a series of tasks that needed to be programmed, such as basic encryption/decryption, animation, word play, etc… worth points based on difficulty. Whichever team completed the most when time expired won. My high school team came in second in a state competition.

In 1996, I owned and operated a dial up bulletin board system. For those unfamiliar with BBS systems, they allowed users to dial up using a modem to use text based message boards, news, games and more before the World Wide Web as we know it gained popularity.

After high school, I took time off to work for Dell Tech Support, and later Advanced Network Services with AT&T Wireless to decide if a computer career was really what I wanted. While I knew that I loved working with technology, I also found an appreciation working with the business aspect of the companies. I didn't need to be a programmer, or hardware architect, to stay in touch with the technology.

While researching schools, I thought the USF Information Systems Management Degree blended business and technical education I already knew I needed to advance my career in corporate America.

The Business Intelligence class offered by Don Berndt has been, by far, the most interesting class I've taken, using real world information to teach us how data mining had the potential to increase profits for a particular company

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Student Focus, *continued from page 3*

$1.2 million a year. Think about it: $1.2 million a year, and this was only a class project from a couple of college students! The knowledge my classmates and I gained in this class still makes my head spin if I think about it too long. If my team could put together that type of mining structure, I can't imagine what will be possible when more training and resources are available to me.

"Data mining had the potential to increase profits [for that particular company] $1.2 million a year."

Introduction to Database is a course that has a reputation for being grueling and demanding of students, with large detailed projects. It lived up to its reputation! Combined with Business Intelligence, I learned a true appreciation for working with a well designed database, and how to build one, in this course.

During the past year and a half I've worked as a lab assistant in the College of Business computer labs. I've helped students learn by leading them towards the answers they need to be successful in classes between Introduction to Office, on up to Database and Application Development with C#. I remember one stressful deadline day when half of the class was in my lab and having issues with an assignment. I booted up the instructor computer and gave an impromptu tutorial session fielding questions from students and helping with common trouble spots while being careful to let them figure it out for themselves. Helping my classmates in this manner is actually one of my proudest moments at USF. §

Faculty Focus, *continued from page 3*

When we first started doing this 20 years ago, we used VHS tapes for recording; these tapes were also sent by courier to the Lakeland, Sarasota and St. Petersburg branch campus sections. Now, we record on DVDs and each branch campus is responsible for recording the "live" feed, so couriers are no longer necessary. Also, students can watch any lecture from the comfort of their home using USF's netcast system (http://www.netcast.usf.edu/). Technology has improved too; we now use a smart board linked directly to the recording device. This is especially useful when I'm demonstrating the use of statistical software, as the smart board can directly capture anything shown on the computer monitor into the video.

Your lectures are also shown on WUSF-TV, Channel 16. How did that come about?

When I proposed TV-teaching at USF in 1989, the idea was completely unknown to USF's College of Business. As you can imagine, students were very apprehensive about taking a course like this. To overcome this challenge, I wanted to make the TV class experience superior even to a live class experience. Usually this means resources, resources, and more resources are required to help students succeed. Prior to the netcast system, we needed a way for students to watch any video lecture outside of their regular TV classroom, and WUSF was the logical choice. The class is now scheduled on WUSF at a late night slot for any student who might prefer watching the class on TV instead of over the web.

The presentations are current each semester. There is no recycling. Although the target audience for the WUSF presentation is current registered students, I'm amazed at how many times over the years a stranger has stopped me out in public to say "I saw you on TV last night."

Tell us about your family.

I met my wife when we were both getting our graduate degrees in statistics at UF. We married in 1981 and have two daughters. Our elder daughter graduated from Rollins College as a math major with a minor in art history. She wants to be a museum curator and is preparing to attend graduate school next fall to pursue that passion. Our younger daughter is a UF Gator and she, too, is majoring in math.

I guess math runs in the family! A final question: you are one of the biggest sports fans in the department. What teams do you follow?

Oh yes, I am a big sports fan. I have been a Gator football season ticket holder since 1975 and have rarely missed a home game in the "Swamp" since then. But of course, I root for the Bulls, too. §

News

Hevner Research Paper Recognized by Thomson Reuters ScienceWatch.com

Thomson Reuters Essential Science Indicators has recognized professor Alan Hevner's co-authored research paper, "Design Science in Information Systems Research" in MIS Quarterly, March 2004, as one of the most cited papers in the field of business and economics. The paper is highlighted as the August 2008 Emerging Research Front Paper in Business and Economics on the ScienceWatch.com website. Hevner and his co-authors, Salvatore March, Jinsoo Park, and Sudha Ram provide a commentary on the impact of the paper at http://sciencewatch.com/dr/erf/2008/08augerf/08augerfHevET/

Bhattacherjee is Citigroup/Hidden River Research Fellow

Anol Bhattacherjee of the ISDS Department was awarded the Citigroup/Hidden River Research Fellowship in the College of Business. This is in recognition of his extensive research in information technology adoption and diffusion. Bhattacherjee's research has been published in leading academic journals such as MIS Quarterly and Information Systems Research. His 2001 MIS Quarterly paper is credited with starting a new stream of research on technology continuance. With roughly 250 citations in Google Scholar thus far, this paper is used as an exemplar of technology adoption research in doctoral seminars worldwide.

Inaugural USF Business Intelligence Conference a Success

BIS.08, the first USF Business Intelligence Summit, was held at USF's Tampa campus on April 18, attended by more than forty people from 17 leading organizations. Keynote speakers were Raghav Madhavan from Morgan

Stanley, Janet Foley from PricewaterhouseCoopers and Kevin Lewis from Teradata. The presentations and discussions centered on how technology could help businesses demonstrate intelligence, with specific panels and presentations highlighting the opportunities and challenges of BI in financial services, professional services, healthcare and retail. Co-organized by professors Don Berndt and Balaji Padmanabhan, attendees enthusiastically praised the program, so we aim to make this summit an annual program, with the next event focusing on business intelligence in healthcare. The thought leadership and support provided by Phil Barnett and Allen Biggs from PricewaterhouseCoopers is gratefully acknowledged.

Upcoming Events

Lean Management - October 20-24, 2008
Location: USF Tampa Campus

This extremely popular course uses a number of innovative methods to teach principles of Lean Management and Business Process Improvement. The dynamic graduate course, which is team-taught by several USF faculty members, is led by ISDS' Ron Satterfield and supported by a number of Bay Area manufacturing, health care, and services companies employing Lean.

Associated with the famous Toyota Production System, Lean Management emphasizes methods for finding inefficiencies in workflows and improving throughput, error rates, and cost. The USF course uses hands-on exercises, off-campus tours, guest speakers, and cases to show how Lean principles can be applied. USF students taking Lean immediately relate what they learn to their own jobs, seeing how Lean can be applied to back office, manufacturing, and IT processes.

The course is typically filled to capacity each time it is offered, attesting to the interest MBA and other graduate students have in Lean. The course is taught in an executive education format, meeting 8-5 Monday through Friday. For more information about Lean at USF, contact Ron Satterfield at (813) 974-6756 or at rsatterf@coba.usf.edu.

Newsletter editorial team: Manish Agrawal and Lorie Briggs

Research Feature: Social Cognitive Interpretation of Person-Organization Fitting: the Maintenance and Development of Professional Technical Competency

Ellis Blanton's research interests include social and organizational impacts of information technology and issues concerning IT professionals, such as professional development and competency. He has over fifty articles and papers concerning these topics in publications including Management Information Systems Quarterly, Journal of Management Information Systems, and Communications of the ACM.

In March 2007, Professor Ellis Blanton and PhD alumnus Steve Wingreen published an article in the top rated Human Resources Management Journal [3]. A summary of the article is presented below.

The IT skill portfolio possessed by an organization bears directly on its ability to accomplish its corporate strategy. But IT skills can not be acquired apart from considering the motives of those who possess them, so the challenge is how to align the motives of the IT professionals to develop and maintain their technical competency with the requisite IT skill portfolio of the organization. Organizational issues such as this have traditionally been examined in academic research using person-organization (P-O) fit (see top of Figure 1), i.e., the match between an employee's beliefs and values with the organization's culture and values.

However, results from studies based on P-O fit have often been fragmentary and conflicting, primarily for two reasons. First, the application of P-O fit occurs at a single point in time while conceptually the P-O matching process is in fact dynamic, occurring over time. Second, P-O fit itself is not a theory and most applications have not been based upon accepted organizational theories. The purpose of this article is to present a new theory-based model of "P-O fitting" that can be use to examine the antecedents, processes, and outcomes associated with matching IT professionals technical competency with the requirements of organizations' IT skill portfolio.

Social Cognitive Theory and P-O Fit

The authors use Social Cognitive Theory (SCT) as the theoretical basis for the new model because it has demonstrated a strong ability to explain the interactions between cognition, motives and behaviors (Wood & Bandura, 1989). SCT proposes that human behavior and cognition may be explained as the result of the ongoing interactions between socio-cognitive, behavior, and environmental influences. As such it accounts for the dynamic process that occurs when an employee is "fitting in" with an organization over time. Integrating the predictions of SCT with components of the tradition P-O fit model the authors developed a dynamic model of P-O fitting (see bottom of Figure 1). The new model retains the relationships with antecedent and out come variables as illustrated in the traditional model of P-O fit and incorporates the dynamic process of fitting that is predicted by SCT.

As the new model of P-O fittings illustrates, IT professionals make assessments of the gap between their technical competency and their perception concerning the organizations IT skills requirements (Perceived P-O fit). Based upon this assessment,

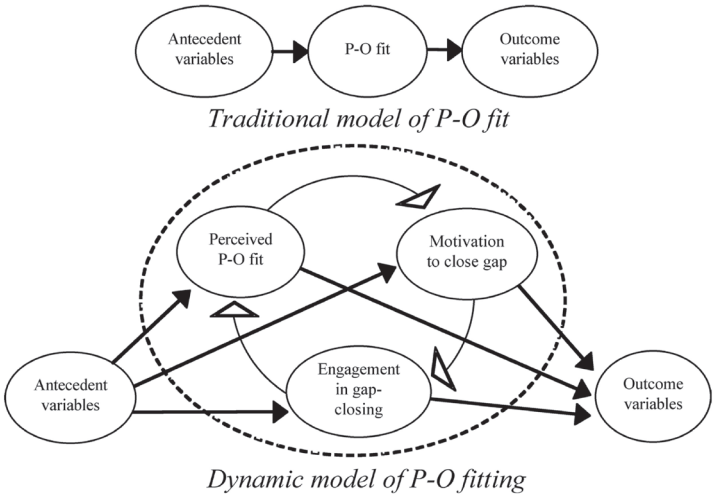

Figure 1 Traditional model of P-O fit versus dynamic model of P-O fitting

they become motivated to close the gap (Motivation to fit) and then take action to close the gap through professional development activities (Engagement in fitting behavior). The cycle repeats itself when the IT professions reassess the gap, and so on. An IT professional that does not make a proper assessment or does not become motivated enough

[3] Stephen C. Wingreen and J. Ellis Blanton, A Social Cognitive Interpretation of Person-Organization Fitting: the Maintenance and Development of Professional Technical Competency, Human Resource Management Journal, Winter 2007, Vol. 46, No. 4, Pp. 631-650.

HRMJ is one of the select business journals used to by Financial Times to evaluate business schools.

to take required action will see their technical competency wither over time. Behavioral research has identified certain antecedent "individual differences" that affect employees' willingness and ability to participate in P-O fitting.

Antecedent Variables

Organizations can help IT professionals participate in the P-O fitting process to develop and maintain the appropriate technical competency, however, not all IT professionals are alike in their willingness to participate. Self-efficacy (SE) and locus of control (LC) are excellent predictors of the degree of participation of IT professionals. SE is "beliefs in one's capability to organize and execute courses of action required to produce give attainments" (Bandura, 1997). As such, SE is whether employees believe they can do something to create change in a given situation, which indicates their willingness to participate in gap closing behaviors. LC is the employees' belief in control over reward and reinforcement, which indicates their belief that participation in gap closing behaviors, can lead to desired outcomes.

The purpose of this article is to present a new model of P-O fitting for IT professionals' technical competence. It makes contributions from an academic and management perspective. From the academic perspective, the article suggests several propositions for future research, which will validate the model and provide new insights into the process of employee fitting. From a management perspective, interventions may be devised so as to account for and subsequently optimize the P-O fitting process with the goal of enriching the organizational IT skill portfolio. The results would also lead to increased work-related outcomes such as job performance, job satisfaction, and organizational commitment. §

References

[1] A. Bandura, "Social foundations of thought and action: A social cognitive theory," Englewood Cliffs, NJ: Prentice Hall, 1986.

[2] A. Bandura, "Self-efficacy: The exercise of control," New York: W. H. Freeman & Co, 1997.

Alumna Spotlight,

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ming class, it was PL/C…if anyone remembers that.

What entry-level opportunities are available today in IS/ IT?

Companies such as JPMC have programs specifically targeted to new graduates, opportunities in business analysis, project management, business management, software development and quality assurance. We encourage movement in the organization to gain broader experience to build future leaders.

As an employer, what attributes do you seek in new hires?

Specifically, for new hires right out of school, I look for leadership, high energy, and communication skills. In lieu of work experience, I look for volunteer experience especially where the candidate held leadership roles.

- Reach out. Get engaged in activities such as the MIS Society. You'll meet great contacts and get advice from seasoned leaders.
- Take a COBOL class….or get a book and learn it on your own. The retirement of the many COBOL programmers who built the massive financial engines that are still in place today is a huge employment opportunity for new graduates.
- Make the most of educational opportunities and build relationships with professors…if they see that you are genuinely interested, they will knock themselves out to help and encourage you.
- Network!

Questions and Answers

Alumna Spotlight: Darr Isler

Darr Isler has many years of IT management experience in the Tampa Bay area. Vice President at JPMorganChase, she shares her career experiences below.

Tell us about your current responsibilities and your team.

As VP and Quality Assurance Manager, I manage a group of 30 people who test software for funds transfer applications at JPMorganChase. I have just accepted another position within funds transfer as a Program Manager where I will lead project delivery for a cross-functional team of about 40 people.

Tell us about the career path you took to reach your current position.

I started as a programmer at Morton Plant Hospital and worked my up the ladder as a systems analyst and a project manager. This is where I got my fundamental experience in all aspects of the software development life cycle.

I accepted a director of MIS job at Helen Ellis Hospital where there was virtually no automation at all. Within three years, the entire organization was running on a full-blown hospital information system (this was while I worked on my MBA).

I was later Vice-President of Software Development at Raymond James Financial during a very exciting period of explosive growth. My team grew from 10 to 200 people and we were leaders in maximizing the capabilities of the internet which was pivotal in attracting investment advisors to the firm.

I later worked at a smaller company as the CIO of ABR Information Services. We acquired a number of firms across the country, enabling us to grow new business segments and enhance existing ones. I was at ABR in the late 1990's and dealt with all of the hardware and software changes needed to prepare for Y2K. We were acquired by another firm, but the unexpected change gave me an opportunity to deal with investment bankers and senior leaders in a number of firms interested in acquiring us. It was actually quite interesting.

Now unemployed, I faced a job market suffering from the dot.com implosion, combined with a void in IT spending as that Y2K efforts were over. Unwilling to take positions outside of the Tampa Bay area, it took me quite a while to secure another IT management position in the area. I optimized my time by helping my husband start up a mobile diagnostic medical imaging business.

The network I built over the years in professional associations helped me land a contract job at JPMorganChase in the credit card industry, giving me the opportunity to become intimate with the Quality Assurance part of the software development life cycle. I soon became a full-time employee as we globalized our department, allowing us to operate 24 hours/day, 6 days per week. After we merged with BankOne, our IT division moved to Delaware. I was unwilling to leave the Tampa area, but was fortunate to find a similar position at JPMorganChase's Treasury Services.

Describe your educational background?

I graduated in 1982, BBA, major in Management with emphasis on Management Information Systems, magna cum laude & MBA in 1990 – both USF.

What courses outside the ISDS department did you find to be most useful in your career? Which MIS courses?

Without a doubt, the two COBOL classes I took out of the College of Engineering helped me the most. They helped me get my first job and helped me find another one later on in my career. Accounting courses helped me gain respect for my general business knowledge as I started taking on management responsibilities such as budgeting.

Systems analysis and design (a most interesting course) taught me skills that traverse everything I've done in my career. The course was typically taught typically with ambiguous assignments, just like in the real world of software development.

Did you work while attending USF?

Yes indeed!!! I started my own accounting business for several small clients. This gave me a lot of flexibility to work around classes. I learned enough to discover I didn't want to continue to pursue an accounting degree!

I was also a TA at USF and taught a computer program-

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