

ALUM Matters

A newsletter for alums of the Department of Computer Science

Bryant York: a retrospective

As I near the end of my useful lifetime as a slowly moving part in the machinery of life, I am afforded the luxury of waxing philosophical. Young people, gird yourselves! I remember a time when there were almost no African American and very few women computer scientists. The world was a very different place and American society was experiencing severe diversity growing pains. The civil rights movement of the 1960s (including the accompanying turmoil); the assassinations of John F. Kennedy, Robert Kennedy, Martin Luther King, Jr., and Malcolm X; the Vietnam War; the quest to put a man on the moon; the women's liberation movement; and the birth of the Information Era, were only part of the social context in which many early computer science departments were conceived and born. These were also the formative years of my life. The UMASS Amherst Computer Science Department (formerly COINS) was founded during this time, rapidly coming of age in the 1970s, defining itself and establishing a departmental culture that engenders success in its graduates. In order to understand why COINS was such a good fit for me, you need to understand a little about me and a little about COINS.

As a young child growing up in the segregated, federally-subsidized housing projects of Boston in the 1950s, I thought there were only two kinds of people – Black people and White people. I spent countless hours devising ways to avoid white people, as overt racism was a simple fact of daily life. Our annual race riots lasted approximately three weeks each summer, starting on the Fourth of July and dissipating by the end of the

month. During this period my family would often sleep in the windowless hallway of our apartment in order to avoid the nightly rocks, beer bottles and Molotov cocktails coming through the windows. Fortunately, I had three things going for me: (1) My father was a strict disciplinarian who believed that any obstacle could be overcome with hard work; (2) My mother was a hard-working pragmatist who epitomized human compassion; and (3) I was a middle child. Both parents were raised in Catholic orphanages and reached adulthood during the Great Depression. Favorite mixed metaphors and quotes (repeatable in public) from my mother include, "It is better to be lucky than smart," "Work hard, keep your head down, and be invisible," "Don't let your light skin get in the way of your blackness," "Maintain your focus while others are trying to distract you," "There, but for the grace of God goes me!" and, "Please consider the priesthood."

In the seventh grade, I was sent to the Boston Latin School where I was one of a handful of blacks. During these years, I learned the lost art of managing two distinct identities – Bryant York, student in the white



setting at Boston Latin School and Bryant York, black boy in Orchard Park Housing Project. During my first year at Latin School, Sputnik went up and fear overtook the nation. I was selected for an advanced mathematics program and sent off to MIT every summer. It was at Latin School that I first realized there were many different kinds of white people (English Americans, Italian Americans, German Americans, Polish Americans ...) and where I first learned of anti-Semitism, anti-feminism, and the diversity and gradations of bigotries. I graduated Latin School in the early 1960s; majored in mathematics at Brandeis University where I learned FORTRAN; was invited to the IBM Cambridge Scientific Center where I learned LISP, and APL; subsequently worked for two years; earned an M.S. in management at MIT's Sloan School; and worked three more years before applying to the computer science program at UMass Amherst. What prompted me to apply to UMass? I was sitting in a book store in 1974 when I came across Michael Arbib's book, *Brains, Machines and Mathematics*, for me a serendipitous, life-changing experience. I had always loved mathematics and computers so I hopped into my car, drove to UMASS Amherst, and without an appointment went into to Dr. Arbib's office. He spoke with me for over an hour and encouraged me to apply to COINS. In the fall of 1974 at the advanced age of 29, I quit my high-paying job and joined the COINS community.

COINS was a vibrant research community in which student autonomy was highly valued. The faculty at that time included Michael Arbib, Bill Kilmer, Cax Foster, Nico Spinelli, Ed Riseman, Robbie Moll, Dan Fishman, and Bob Taylor. At the time Al Hanson was still at Hamp-

shire College while Connie Wogrin and Dave Stemple had taken responsibility for firing up our new CDC 6600 in the computer center. Lori Clarke, Vic Lesser, Jack Wileden and Bob Graham joined the faculty during the next two years. There was a remarkably low level of competition and an extraordinarily high level of cooperation among the early cohorts of graduate students, which included Art Karshmer, Elliot Soloway, Ed Fisher, Jim Stanley, Peter Burt, Fanya Montalvo, Charlie Welty, Paul Nagin, Debra Richardson, Tom Williams, Andrew Singer, John Woods, Len Wesley, John Lowrance, Mitch Zolliker, Neal Ogden, Kurt Konolige, Bev Woolf, Daryl Lawton, Dan Corkill, Ralf Kohler and others. It was at COINS that I first experienced white friendship, the freedom to express my ideas, no need to be invisible, no need to keep my head down, and no need to maintain dual identities. I developed a number of lifelong friendships that I cherish daily.

COINS presented a broad array of enrichment opportunities. Here is a partial list of the kinds of positive experiences from that time. Ed Riseman and Michael Arbib invited David Marr, one of the leading researchers in the field of computer vision, to UMass Amherst and took me to lunch with him to discuss my dissertation research in computer vision. David Huffman and Takeo Kanade were invited to give presentations at UMass Amherst followed by informal conversations with graduate students. Each of them encouraged my work and provided me with sets of origami figures that were relevant to my research. In 1975 I had the opportunity to teach a course inside the Pittsfield State Prison through the UMass Amherst University Without Walls Program. It was also the year in which I had my first exposure to the Moore Method of teaching in a course taught by Robbie Moll. Ed Riseman and Al Hanson invited a number of celebrated researchers in computer vision (including Nils Nilsson, Ruzena Bajcsy, Azriel Rosenfeld, Raj Reddy, and Marty Tenenbaum) to a poster session in order to provide critical commentary on the work of their students. In 1977, Ed and Al took the VISIONS team to the first International Joint Conferences in Artificial Intelligence (IJCAI) and introduced us to the leading researchers in the field. All of the people mentioned above have played significant roles in my life and career and I am truly grateful for these opportunities gated by my presence in the COINS community. Finally, while I was in the writing stage of my dissertation, my mother called my siblings and me to Boston to announce

SAVE THE DATE: Alum Banquet 2010

The second Outstanding Achievement and Advocacy (OAA) Awards Banquet will be held on campus on the evening of Friday, April 30, 2010. The OAA awards program recognizes the achievement of our alums in such areas as entrepreneurship, scientific research, and education. Please join us to celebrate the accomplishments of our award recipients and to socialize with faculty and fellow alums. Details on the events can be found at www.cs.umass.edu/oa2010.

In September, CIIR alum **Ben Carterette** (Ph.D. '08) received the Best Paper Award at the 2nd International Conference on the Theory of Information Retrieval (ICTIR '09) for his paper, "An Analysis of NP-Completeness in Novelty and Diversity Ranking." The award was sponsored by Yahoo! Carterette is currently as Assistant Professor at the University of Delaware.

This summer, **Anita Raja** (Ph.D. '03) was promoted to Associate Professor with tenure in the Department of Software and Information Systems at the University of North Carolina at Charlotte. Dr. Raja was also married in June to Dr. Cephas Swamidoss. Their wedding was held in Chennai, India.

In July, Microsoft appointed **Steven Sinofsky** (M.S. '89) as President of its Windows and Windows Live Division. Prior to this position, Sinofsky was Senior Vice President of the Windows and Windows Live engineering group. He previously oversaw the development of the Microsoft Office system of programs, servers and services.

Evan Smith (M.S. '91, BS '88) is currently in his fourth year of medical school at the University of Chicago. Prior to returning to school, Smith was the Director of Engineering at Wellogic.

that she had terminal lung cancer and about three months to live. My mother insisted that I return to UMass Amherst and complete the dissertation. Being an almost-dutiful son (I had eschewed the priesthood), I acceded to her request. Back at UMass Amherst, thinking and writing became impossible and Ed detected that something was amiss. By this time Ed and I had become old buddies. We lived in the same apartment complex and often commuted to school together. He called me to his office and got me to open up. Once he knew my problem, he insisted that I go home to care for my dying mother. He pointed out that this was one of the few situations in which it is permissible to ignore a mother's orders. I'll never forget Ed Riseman!

Recently many people have begun to ask me, "With the kind of research background and opportunities afforded by COINS, how did you end up as a doorman?" My reply is usually something like, "For a kid who was born with a plastic spoon in his mouth, I didn't do so badly."

If someone had told me forty years ago that I would spend most of my professional life as a doorman, I would have been puzzled and laughed, but that is what has happened. Service has clearly dominated my professional career. Although I enjoy research and teaching immensely, they have always taken a back seat. I could have kept my head down, remained somewhat invisible, and tried to join the



York in 1957

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100+ publications club, possibly earning the respect of some of my white colleagues. However, I saw an important opportunity, a chance to change the culture of the field of computer science. The job description read, “*Keep the door to computer science propped open long enough for minorities and women and persons with disabilities to enter in sufficient numbers that they are able to participate in a normal, unfettered manner without distractions.*” One of my great rewards is that now I can attend a conference in almost any sub-discipline of computer science and see at least one other black face. Currently there are over 170 black PhDs in computer science (as well as over 200 black graduate students in the pipeline) doing research and teaching in academic, governmental, and industrial institutions around the world. Would these numbers have resulted without major effort by me and many others? It’s highly unlikely. I can point to several young researchers, whom I have mentored, who are well on their way to membership in the 100+ publications club. So, was it worth being tokenized? Was it worth serving on all those committees and advisory boards? I reply, “Definitely yes!” My legacy is that I helped to create the luxury of the single-identity black computer science researcher. In 2006, when I was named an ACM Fellow, there were a number of negative reactions, and I overheard one of my white colleagues say, “*If Bryant can become an ACM Fellow, then anyone can.*” The implication was that the ACM had lowered its standards for Fellow in order to admit me. Initially I was hurt, and then I was heartened. The ACM had made a statement about its values. It valued contributions to the overall health of the computing discipline as well as excellence in research.

So now you know a little about me and a little about UMass Amherst Computer Science (COINS).

Now, I offer my final pontification. In your later years, when asked to fit a straight line or even a piecewise linear curve through your life’s achievements, you should respectfully decline. Backtracking is a metaphor for life. One should never be afraid to backup and start down a different path. Success is measured in many different ways. What’s most important is to live a life worth living. Life is a sequence of human amplification opportunities and you must take advantage of these opportunities in order to be in a position to create such opportunities for others. Now the world is flat and the United States has a black president. It couldn’t be more different from the world in which I grew up 50 years ago. What of value can a modern student take from this exposition? What can an old black man, who never had a white friend until he was 30 years old, tell a young black researcher (who has had white friends since birth) about how the modern world works? Regardless of your achievements, a person’s character must transcend the kinds of situations in which you find yourself. On a national/international level, I was fortunate to live during the times of such icons as Nelson Mandela, Robert Kennedy, Martin Luther King, Jr., John F. Kennedy, Muhammad Ali, and Jackie Robinson. What I learned at UMass Amherst/COINS was how to recognize and admire those heroic values in my everyday colleagues.

Dr. York is currently a Professor of Computer Science at Portland State University and Co-Director of the Laboratory for Learning and Adaptive Systems. He received an M.S. and Ph.D. in Computer Science from UMass Amherst in 1976 and 1981, respectively.

CIIR Reunion

The Center for Intelligent Information Retrieval (CIIR) held a reunion during the 32nd Annual International ACM SIGIR (Special Interest Group on Information Retrieval) Conference held in Boston, MA in July. In addition to a social gathering of CIIR alums and associates who had traveled from around the world for SIGIR 2009, the group celebrated Bruce Croft’s 30th year at UMass Amherst and James Allan’s 15th year in the CIIR. Allan was General Co-Chair of SIGIR 2009, a five-day conference with more than 500 attendees.

Front Row (left to right): Van Dang, Yun Zhou, Dave Lewis, Carol Broverman, Bruce Croft, Howard Turtle, Jamie Callan, Jean Joyce, Matt Lease. 2nd row: Bob Krovetz, Jeremy Pickens, Kate Moruzzi, Hema Raghavan, Kyung Soon Lee, Elif Aktolga, Van-

essa Murdock, Sai (Chandu) Ravela, Jiwoon Jeon, Don Metzler; 3rd row: Xing Yi, Fernando Diaz, Chirag Shah, Xiaobing Xue, Sudheer Gaddam, Jangwon Seo, Jinxi Xu, Hongmin Shu, R. Manmatha, Eric Brown, Trevor Strohman; back row: Jinyoung Kim, Ben Carterette, Anton Leuski, Victor Lavrenko, James Allan, Mark Smucker, Dirk Mahling, David Harper, and Mark Sanderson.

