## Scott Olmsted '74

Junior year at Fullerton High, where I knew both Bruce Nelson and John Ogren, I asked John where he was going to college. He said "Harvey Mudd College", to which I responded "What's that?", though it is only about a half hour from Fullerton. After Bruce, John, and I applied we wondered if HMC would take all three of us from one school, but to their credit they did.

Though my main interest at HMC was computers, I was also interested in Operations Research and probability, so after Mudd I went to the Operations Research department at Stanford intending to get a doctorate (in hindsight, I should have gotten a Master's in Computer Science and worked in Silicon Valley). Carl Silsbee, also at Stanford for a year, and I took a course together on Decision Analysis, the logical science of decision-making with an emphasis on uncertainty and probability from Prof Ron Howard (not the actor), who eventually became my advisor when I moved to his department (Engineering-Economic Systems) after failing the qualifying exam in the Operations Research department. I was not a math major at HMC and operations research was very mathematical. I did not have Joe Costello's abilities to master an entire course in two weeks, so I couldn't quite catch up.

It took me seven more years to finish my doctorate program in decision analysis in the Dept of Engineering-Economic Systems, though I spent a year working at SRI (formerly Stanford Research Institute), where my advisor had a consulting group, a year creating a software program for decision analysis that I sold for about a year's salary, and a year mostly engaged in political activism, having become a libertarian in 1977. In 1979 word came from Stanford students interning in Washington, D.C. that President Carter was going to reinstate draft registration. I helped organize a rally at Stanford the day after the announcement at which my idea of enlarging an actual draft card to about three feet across and burning it was carried out. A photo of this made the front page of newspapers around the world.

My dissertation made a fundamental advance in a subject we called "Influence Diagrams" but is now called "Bayesian Networks", a recognized field of research. But at that point I was a tired of the subject and did not pursue it further. Most who studied decision analysis went on to become management consultants and I did as well for a while. But it was frustrating to go to a client, learn enough about their business to help provide insight into their decisions, hand them some tools and instruction, and then leave and never learn how the next phase went, such as whether the tools we provided were incorporated into how management operated. Also, living on the West Coast and having East Coast clients often meant flying on Sunday and being in their office Monday at 5 am West Coast time. I was still something of a night owl (though not like Tedd Gibson!) and the shine wore off pretty fast.

Coincidentally, at that time our classmate Martin Caniff joined a startup in San Diego called Optigraphics and brought me and Ross Larkin aboard. The goal was to make a scanning system for large engineering documents and blueprints, and create CAD files from the scans. This turned out to be a much harder problem than the founders realized and success was limited. I don't know what the state of the art in this area is now, but maybe AI could make it work. Martin was the best manager I ever worked for, applying all the lessons about herding cats he learned while managing the effort to steal the cannon, no doubt. I moved to another startup, Hecht-Nielsen Neurocomputers, in neural networks, where I created what I believe was the first neural network-based face recognition system as a demo. They had high hopes of training others to solve problems with neural networks and selling add-on processor boards to do it, but again, success was limited, partly because data need to be pre-processed before being fed to a neural network, and that's as much art as science, partly because microprocessors in the 1980's could handle only relatively small networks, and partly because to obtain training data for real problems meant collecting the data yourself (the internet was still a decade off). If you had told me that to generate text almost indistinguishable from human output would take training a network with hundreds of millions of nodes on billions and billions of documents, I would have spit my coffee.

That startup eventually succeeded by tackling the particular problem of credit evaluation and hiring people from the banking industry to sell a product there. To train the networks in their products they pooled the data they obtained from all the banks that were their customers. That worked to freeze out competitors. Eventually, long after I and all the original engineers had left, they reached 1,000 employees and were bought by Fair Isaac, the FICO score people.

Along the way I looked into getting back into the management consulting business. But I had to admit to myself that I am really an engineer and not just an analyst; I like figuring out how to build things for people who then say, "That's great, I like using what you created, it helps me in my work". So I stuck with software. Though I had deliberately avoided becoming a manager, I finally admitted to myself that I like coding and I wanted to continue doing it.

After that, I consulted as a software developer for a few years with some of the people I had worked with. I fell into a niche of creating software on desktop computers to communicate with the firmware of something, such as a medical device (or in one case a toy) and allow monitoring and control. In the mid-90's one of those devices was a radio combined with an early GPS unit for the Army. They would put these on tanks and then do practice maneuvers. Then they could replay where everybody was at all times and critique their performance. I created a map-like display during testing. One of our team would put a unit on a car and drive around town while we'd see where they were, using a military radio frequency we weren't supposed to use.

In the early 2000's I worked under contract for three years at AT&T Labs for Rick Greer, '72, who I knew at Stanford, on a distributed database that he created and won an internal award for. I didn't like the work much, but it paid better than anything else I did. It ended when AT&T capped the rates of all contractors and my pay was cut almost in half. I thought that AT&T was cutting expenses in order to sell itself, and I was right. The buyer, another baby bell, SBC Communications, then took the AT&T name. So when you now deal with AT&T, it's not really the old AT&T.

For a year the father of one of my stepson's friends, a hardware and firmware designer, and I worked under contract for a startup to create a box to put on golf carts, with a screen to show the layout of the current hole being played, and using GPS to show where you were currently located. The startup owner did not honor his obligation to pay us, so while that was a lot of fun,

it didn't pay the bills. Similar apps soon appeared on the new iPhone and killed that business, so maybe there is some justice in the world.

During that period I saw a computer magazine with a mention of "Ruby on Rails" on the cover, and I bought it so I could learn what this strangely-named thing was. It is a framework for creating websites in the Ruby language and was new and becoming a hot thing in 2007. I had deliberately avoided web programming, but decided I liked this because it could create websites with less effort than existing frameworks. I spent most of 2008 learning Rails but not able to find work of any sort because of the recession. My wife suggested I advertise on Craigslist, which sounded nuts, but hey, what did I have to lose? I started hacking Craigslist to put an ad for my services in every large American city (they don't want you to do that), and, to my amazement, my ads produced lots of phone calls because Rails was hot. As a freelancer (no longer an "independent contractor") I worked for several dozen clients and created some nifty interactive websites, though more often I took over projects that other developers left. Eventually I called my business "Rails Rescue". The Craigslist ads stopped working after a few years when some other frameworks arrived, but I had enough clients to keep going for several more. They've all departed now except two and these don't give me much work, so I'm nearly retired.

I married my wife Barbara in 1996 (the picture is from 2005). She was my neighbor in Encinitas and I knew her and her then husband, even had dinner at their house a couple times. But she divorced him, stayed in the house, and I got interested. Her son was 12 when we married. He's now 40, an airframe and power plant mechanic with Delta Airlines in Seattle, and a father of a 4-year-old boy. We do a lot of cross country flying from Florida, where we live in a 55+ resort community with lots of activities. We bought a small mobile home a few minutes from their house and spend visits and summers there (it's brutal in Florida from June to October, but the rest of the year is mostly quite nice).

I still play guitar, though I took piano lessons for a few years. I believe that learning piano is like learning a language, best done when you are young. Making each hand do something independently is just not something I could master, except piece by piece rather painfully. So I went back to guitar. The hands do different things, but they do them synchronously to produce one note or chord.



Professor Molinder said he never missed a chance to attend our reunion dinners because they were so entertaining in addition to having good turnouts by many of his former students. I have produced the activity after reunion dinners since the 10-year reunion, I think. They were mostly knockoffs of TV game shows: "Who Wants To Be A Muddionaire?", "Wheel of Mudd", "Famuddly Feud", etc. A lot of work, but lots of fun. I thank George Innis for creating and the reunion committee for awarding me a wart for this quinquennial effort, here on my bookshelf with my previous wart for accompanying Joe Platt 's songs at Alumni Weekends in 2004, 2005, and 2006, and my 50<sup>th</sup> Reunion medal:



Reach me at <u>scott.m.olmsted@gmail.com</u>, especially if you think you can be convinced by evidence that many well-known events, such as 9/11, didn't happen the way the government and media tell us they did. I can point you to some interesting sources.