

Distinguished Alumni

Distinguished Alumnus Award – 2008

Burton Smith '58

You arrived at Cate as a junior in the fall of 1956 with your parents' hope that it would light a fire under you and help you realize the potential seen by those around you. You remember your two years at Cate as a time of “rocketry and musical comedy,” and recall with particular fondness being a lead in Master Pierson Melcher's “Cuttin' Capers” in the winter of 1958.

Although you were a natural in math and science, the greatest value of your Cate experience lay in the breadth it offered and the inspiration the masters provided. Under the tutelage of English masters Bill Dalton and Joe Campbell, you developed a love of literature that has continued throughout your life. In Dana Redington's chemistry class you learned how to study more effectively, and he got you so excited about the subject that you were inspired to fully apply yourself—so much so that in 1958 you tested as the third best chemistry student in a statewide competition.

After Cate, you studied physics at Pomona College for a year, followed by a second year at the University of New Mexico, but you found yourself uninspired by your academic pursuits. You dropped out and joined the Navy for four years, serving as a submariner and working on the first US spy satellite. This experience helped you grow up and provided direction in your life.

Beyond realizing you didn't want to be a physicist, you discovered that you loved to invent and create things, which inspired you to return to the University of New Mexico, where you majored in electrical engineering, graduating *summa cum laude* in 1967.

You applied to and were accepted into electrical-engineering doctoral programs at Cal, Stanford, and the Massachusetts Institute Technology; you chose MIT because it included financial aid. Interestingly, the job offered to you as part of your financial aid was to build a database for the computer science department, and this is where you fell in love with the mathematics of computing.

After completing your doctorate and two years of teaching at MIT, you returned to the West to join the faculty at the University of Colorado at Denver. Soon thereafter, a consulting project to build a digital computer started you on the path for which you have become known – parallel processing. You could see that the general application of the solution you developed was much more broadly applicable, and in fact was an inevitable course of computing evolution.

In 1979 you left academia and spent six years at Denelcor, where you were the architect of the Denelcor HEP, the first commercial parallel computer. You subsequently spent three years at the Institute for Defense Analyses at the Center for Computing Sciences, a contact point between the academic world and the National Security Agency.

In 1988 you founded Tera Computer Company, where you were chief scientist and chairman, taking the company public in 1995 and then through a subsequent merger with Cray Research, a division of Silicon Graphics, to form Cray, Inc.

Most recently, in 2005, you joined Microsoft as a Technical Fellow, working with existing groups to help expand the company's efforts in parallel and high-performance computing.

You have received numerous awards in recognition of your accomplishments. In 2003 you were honored with the Seymour Cray Computer Science and Engineering Award from the Institute of Electrical and Electronics Engineers (IEEE) Computer Society, and were elected to the National Academy of Engineering. In 1991, you received the Eckert-Mauchly Award, given jointly by the IEEE and the Association for Computing Machinery. You are a fellow in both organizations. In addition, you are on the review committee for the Los Alamos National Laboratory Computer and Computational Sciences division, and on the advisory committee for the Pacific Northwest National Laboratory Computational Science and Engineering division. In addition, you sat on the review committee for the Los Alamos National Laboratory Computer and Computational Sciences division as well as advisory committees for the Pacific Northwest National Laboratory Computational Science and Engineering division, the National Science Foundation and NASA.

A self-described former underachiever, you recognize that your path to success has been an unconventional one, and with trademark good humor you are willing to tell your story again and again to anxious parents who are concerned about their own children.

In recognition of your pioneering spirit and your many contributions to the field of computer science, the Cate School Alumni Association honors you, Burton Smith '58, as its Distinguished Alumnus for 2008.