

# JOSEPH F. KENT III

Professor of Computer Science, Emeritus

[jkent@richmond.edu](mailto:jkent@richmond.edu)

804-278-8917

5 Tow Path Circle

Richmond, VA 23221

## EDUCATION

**Ph.D.** Mathematics, University of Virginia, 1970.

**M.C.S.** Computer Science, University of Virginia, 1991.

**M.A.** Mathematics, University of Virginia, 1967.

**B.A. with Distinction** Mathematics, University of Virginia, 1966.

## PROFESSIONAL EMPLOYMENT

University of Richmond

2008-2009	Part-time Special Assistant to the Provost & Adjunct Faculty
2007-2008	Interim Provost
2005-2007	Associate Provost
2004-2005	Special Assistant to the Provost
2000-2003	Associate Dean of Arts & Sciences for Academic Operations
2002-2003	Acting Chair, Physics Department
1987-present	Professor of Computer Science (Emeritus status as of May 2004)
1982-1992	Chair, Mathematics and Computer Science Department
1978-1987	Associate Professor of Mathematics and Computer Science
1973-1978	Assistant Professor of Mathematics

University of Florida

1970-73	Assistant Professor of Mathematics
---------	------------------------------------

## PUBLICATIONS

Since I began my involvement in computer science nearly 20 years ago, my publications have been of a pedagogical nature. With the exception of the most recent titles, all have been used in conjunction with courses at the University of Richmond, printed in the University Printshop, and sold by the University Bookstore.

The most recent books were collaboration with my colleague Dr. Lewis Barnett and resulted from laboratories developed when the CMSC 150 and 221 courses were converted to a laboratory format. Sufficient additional material was added so the books could serve as standalone textbooks for the courses. The earlier manuals were used to provide guided homework experiences for CMSC 150 students because the students did not have a formal laboratory. CMSC 100 Liberal Arts Computing was developed in 1994 as an introduction to computers and the Internet for non-majors. A series of laboratories was developed to supplement the lectures.

*Data Structures – A Laboratory Approach*, with Lewis Barnett,

Franklin Beedle & Associates, 2002

*Java Programming - A Laboratory Approach*, with Lewis Barnett,

Franklin Beedle & Associates, 2001

*CMSC 150 Laboratories*, 1998, approx. 100 pages.

*Computer Science Laboratories for Liberal Arts Computing*, 1995, approx. 50 pages.

The following publications evolved over time. They were developed as guides to the environment for our computer science classes which were taught using Unix workstations until 1998. They vary in length from 30 to 75 pages.

*UNIX+HTML*, 1997.

*Unix at UR*, 1996.

*A Guide to the Unix Workstation Environment*, 1992 with revisions in 1994, 1995.

The following two publications were co-authored with Dr. Sue Brilliant who is now in the VCU Computer Science Department and were used in upper-level computer science courses to teach students the C programming language which is the primary language for system software development.

*Up and Running with C (ANSI C Version)*, 1991, approx. 100 pages.

*C in a Nutshell*, 1988, 82 pages.

Until 1994 we taught Computer Science 301 Computer Organization with a significant laboratory component. The laboratory focused on digital electronics and microprocessors. We used special equipment from Heath Corporation. The manual below provided guided experiments as well as basic information on equipment use.

*From Gates to Computer Systems*, 1988 with revisions in 1989, 1990, 1992, 120 pages.

In 1997 Lewis Barnett and I developed a series of electronic tutorials on basic principles of computer science with the help of NSF. The software is multimedia, hyperlinked, and was developed using Java with two students. Six tutorials were completed and two others are still under development.

*A Digital Tapestry*, 1997 with additions in 1998, supported by NSF and ACS grants.

## **OTHER PUBLICATIONS, PRESENTATIONS, GRANTS**

### Mathematics Papers

J. F. Kent, "Locally connected almost periodic minimal sets," *Recent Advances in Topological Dynamics*, Springer-Verlag, New York, 1972.

J. F. Kent, "A characterization of distal and point-distal minimal transformation groups," *Proc. A.M.S.*, 32(1972), 304-308.

J. W. England and J. F. Kent, "P-recurrence and quasi-minimal sets," *Topological Dynamics*, edited by J. Auslander and W. H. Gottschalk, Benjamin, New York, 1968, 185-203.

### Other Publications

"In search of fast Algorithms," *The Faculty Exchange*, Fall, 1995.

"Reflections...", *The Faculty Exchange*, Fall, 1998. Part of a collection of reflections on changes at UR during our careers.

### Presentations

I have regularly made presentations at professional meetings and to my peers at departmental colloquia. The most recent non-local presentation was at the annual SIGCSE conference in 1998. It was titled "Design and Implementation of an Interactive Tutorial Framework".

I have also given public addresses at UR other than departmental colloquia. The most recent was the faculty address "UR Crossing the Chasm" at the 1995 Colloquy. In 1985 I gave the welcoming address (untitled) on behalf of the Faculty to the incoming students and their parents with the theme of emphasizing the value of a liberal education. In 1980 I gave the lecture "Mathematics: A Moving Force in our Time" as part of the University's Sesquicentennial Lecture Series.

### Grants

Several PETE (Richmond's Program for Enhancing Teaching Effectiveness) summer grants have assisted in development of course materials.

NSF ILI Award, 1997. A joint award to Lewis Barnett and myself to support the development of multimedia, interactive tutorials. Period: 1997-98, with most work done in the summer of 1997. Award from ACS for support of two students in the spring of 1998 with the goal of continuing the work initiated by the NSF grant.

NSF Research Opportunity Award, 1993. This was an add-on to the NSF research grant held by Dr. J. W. Davidson of the University of Virginia and supported me during the summer of 1993 while I was on sabbatical participating in a research project with Dr. Davidson.

## **STATEMENT CONCERNING PROFESSIONAL INTERESTS**

### **Faculty Roles**

I taught computer science from 1980 until 2004. Prior to that time I was primarily concerned with mathematics. Although I had some formal study in computing as early as 1964 and attended several NSF-sponsored summer workshops in the early 1980's, I was primarily self-taught until 1986 when I entered the graduate program in computer science at the University of Virginia. I took courses part-time while continuing full-time work at UR. I received the Master of Computer Science degree in 1991. This is an applied degree which required a major project.

My educational interests were in undergraduate computer science education. I regularly taught courses in computer architecture, operating systems, and compiler design as well as introductory courses for computer science majors. I taught and developed software in C, C++, and Java in recent years. Cobol, BASIC, Pascal, and various assembly languages were taught in courses in the 1970's and 1980's. I am experienced in Unix and NT systems management in connection with public laboratories. I was the first Webmaster at the University of Richmond and developed its initial Web site on one of our departmental servers.

My research activity was limited by my commitment to teaching and keeping up in computer science, as well as by administrative duties. My interests were in compiler implementation and automation of retargeting efforts. This is a small area with most practitioners in industry, although a few are at major research institutions and are supported by industry. I have worked with Jack Davidson of the University of Virginia on several research projects with the results being informally distributed among the compiler implementation community. incorporated the research into my teaching of CMSC 331 Compiler Design.

I viewed myself as a computer science educator who is on top of the latest developments in a rapidly changing field. My research efforts fell into applied computer science rather than theoretical computer science.

### **Administrative Roles**

For ten years I was Chair of Mathematics and Computer Science. More recently I served the School of Arts & Sciences as the full-time Associate Dean for Academic Operations. In this capacity I worked with department chairs and program coordinators to offer the academic programs, hire needed adjunct and term faculty, supervise the process of student evaluation of instruction, carry out annual performance evaluations of all continuing full-time faculty, and represent the Dean and School as required. I planned and ran the orientation programs for new faculty and new department chairs. In addition, I conducted a year-long seminar for tenure-track faculty during their first year. My duties restricted my teaching to at most one course per year.

In August 2003 I returned to full-time teaching and research, although I agreed to be a special assistant and advisor to the Provost. In May 2004 I officially retired from teaching but continued working for the Provost on special projects. In January 2005 I became Associate Provost, returning to full-time work in July of 2005. I assumed the duties of Interim Provost on July 1, 2007 and left the position on June 30, 2008. On July 1, 2008 I returned to a semi-retired status assisting the new provost's transition.

## **RECENT COMPUTER SCIENCE COURSES**

In the last five years on the faculty:

CS I, CS II, Computer Organization, Algorithms, Theory of Computation

## **SERVICE ACTIVITY AT THE UNIVERSITY OF RICHMOND**

Interim Provost, July 2007 to June 30, 2008

Duties are those of the chief academic officer of the institution, responsible for five schools, plus offices of Admissions, Financial Aid, Registrar, Institutional Effectiveness, International Education, and Academic Advising. Additional direct reports include Director of Richmond Scholars, Executive Director of Center for Civic Engagement, and Director of Common Ground (diversity initiative).

Associate Provost, January 2005 to 2007

Duties include

- Director of Richmond Scholars Program
- Coordination of enrollment management initiatives
- SACS Leadership Team
- Coordination of Implementation Aspects of Proposed Gen Ed Curriculum

Special Assistant to the Provost, September 2003 to December 2005

2003-2004 assignments:

- Chair, Faculty Handbook Revision Committee
- Chair, Search Committee for Director of Richmond Research Institute
- Co-Chair, Search Committee for Director of Office of Institutional Research, Planning, & Assessment
- Ethyl-Albemarle Scholars Committee

Associate Dean for Academic Operations, January 2000 – July, 2003.

Acting Chair of Physics, 2002-2003.

Co-Chair, Westhampton Dean Search Committee, 2002-2003.

Chair, Richmond College Dean Search Committee, 2001-2002.

Member, Jepson Dean Search Committee, 2001-2002.

Chair, three search committees seeking an ESL director and two geography faculty, 2000-2002.

Member, search committees for senior and/or interdisciplinary appointments in Biology and Physics, 2001-2002.

Member, Campus Master Plan Committee, 2000-2001.

Co-Chair of Resources Task Force, Strategic Planning Effort, 1999-2000

Search committee for Associate Provost for Information Services, 1997

Chair of the Mathematics and Computer Science Department, 1982-1992. Recruited more than 15 tenure track faculty during that period. Started the Computer Science Program in 1984.

Advisor for undeclared students - nearly every year since 1974 except when on sabbatical or department chair, including 1993-2007.

Advisor to majors - every year from 1973 to 2000 except when on sabbatical.

University Faculty Council, 1976-79, 1983-86, 1994-97. Chair in 1985-86. Usual variety of sub-committees.

A&S Tenure and Promotion Committee, 1994-97. Chair in 1996-97.

Planning and Priorities Committee, 1996-99. I served on the Program Improvements Subcommittee for all three years.

A&S Curriculum Committee, 1990-93. Chair in 1992-93. In 1995 this committee was replaced by the University's General Education Committee as the steward of the new general education curriculum.

General Education Committee, 1998-2000. Chair 1998-2000. Ex officio member 2000-2003 representing the Dean of Arts & Sciences.

Webmaster for the University of Richmond, 1994-95. Established the initial UR main website in collaboration with a librarian, the system manager for the Computer Science cluster, and a colleague in Computer Science. After two years the maintenance was assumed by the University's Information Services group. Computer Science and the Law School had already established their own websites prior to 1994.

Program for Enhancing Teaching Effectiveness, 1977-79. Acting Coordinator in Spring, 1979.

Task Force on Faculty Evaluation, 1978-81. Chair 1978-79.

Project on Institutional Renewal Through the Improvement of Teaching, 1976-78. This was a FIPSI-funded, multi-institutional project with the goal of improving teaching on campus.

Mathematics & Computer Science Department Equipment Coordinator (1981-1999) and System Manager (1981-1993). The department was given a Unix computer in 1981. In 1988 a small Unix lab was developed for computer science. In 1990 a small lab was developed for mathematics. I managed the entire system until 1993 when the department was given part of the time of a staff person in Information Services.

Numerous ad hoc committees, typically one per year.

Numerous departmental committees.