

FACULTY ACTIVITIES REPORT

NAME: Richard J. Botting

FROM: 27 September 2001

TO: 9 May 2003

COLLEGE: Natural Sciences

DEPARTMENT: Computer Science

I. Teaching

A. Teaching and Instructionally Related Assignments

1. List of courses taught and enrollments by term.

Fall 2001

CS202 Computer Science II(33)
CS330 Data Structures(30)
CS595 Independent Study (1) (Ethics)

Winter 2002

CS320 Programming Languages(28)
CS556 Intro Formal Methods(1) *New*
CS656 Formal Methods(6) *New*
CS575 Internship(1)

Spring 2002

CS201 Computer Science I(29)
CS320 Programming Languages(29)
CS575 Internship(1)

Fall 2002

CS202 Computer Science II(30)
CS330 Data Structures(30)
CS575 Internship(1)

Winter 2003

CS320 Programming Languages(20)
CS556 Intro Formal Methods(4)
CS656 Formal Methods(12)
CS575 Internship(2)

Spring 2003

CS320 Programming Languages(25)
Assigned time: Graduate Coordinator for Advising

2. Other

Theses/Projects

I am the advisor on between 10 and 14 MS thesis/projects.
I am on the project/thesis committees of about 30 other MS students.

Advising

From a log I kept in Fall 2001, I advise an average of two undergraduates each week.
As Graduate Coordinator, from January-April 2003, I advised 63 graduate students.

B. Development of New Courses &/or Innovative Approaches

Curriculum Development:

2001-2003 Developed the two new Formal Methods courses: CSCI556 and 656.
2001-2002 Designed two new core courses for the BA:

CS372 Computers in Organizations.
CS375 Requirements Analysis and Design.

I am preparing to teach these for the first time in Fall 2002 and Winter 2003 respectively.

Teaching innovations

(Sep. 2001) Taught CS330 for first time in 10 years -- new content, new book, new kinds of students, and a larger class size.

(Oct. 2001) Developed and evaluated a way to organize study teams to support students with diverse backgrounds in CS330.

(Nov. 2001) Developed and tested the simple visitor pattern to traverse different data structures in CS330.

(Winter 2002): Taught two new courses: CSCI556 and CSCI656 with new content, text, pedagogy, etc.

C. Participation in conferences and seminars on instruction, special preparation for courses and other activities

Special Preparation

(Nov. 2001..Jan 2001): Gathered and organized materials for new Formal Methods courses: CSCI556/656

(Spring 2003): Gathering materials etc. for two new courses CSCI372 & CSCI375 for the new BA in Computer Systems.

D. Other Information

From section III.C below: Chair Computer Science Undergraduate Curriculum committee 2001-2002

II. Professional Activities

Work in Progress/Areas of Activity

- #1. Bibliography & Repository of Software Development Theory and Practice
3000+ annotated bibliographic items.
Repository and bibliographic search engines are answering half-a-dozen queries per day.
- #2. MATHS (language for Formal Methods in Software Development)
The MATHS to HTML translator now uses Cascading Style Sheets
and puts boxes round sub-documents and natural deduction style nested proofs.
- #3. Stochastic Models of Software Evolution
Results presented August 2002 at an international conference.
- #4. Computer Reviews (online (<http://www.reviews.com/home.cfm>) plus hard copy journal)
Average of one review every two months
- #5. Conference & Journal Reviews
Demand driven
- #6. Private Practice as Consultant and Trainer
Variable

(April-May 2003): Working review of Ph. D Thesis: "Inheritance Relationships..." by Tracy Gardner (Springer Verlag UK 2002) for Computer Reviews (Work in progress #4)

Accomplishments

(May 2003): Published review 0305-0466 in Computer Reviews review of paper: "Improving the scalability of the CORBA event service..." by K Ho & H. Leong (S P&E 32(5):417-441). (Work in progress #4)

(April 2003): Review published online by Computer Reviews of "Extreme Programming Perspectives" by Giancarlo Succi, Michele Marchesi, Laurie Williams, James Wells, Addison-Wesley Longman Publishing Co., Inc., Boston, MA, 2002. (Work in progress #4)

Published review #0304-0311 in Computer Reviews of "Requirements by Collaboration" by E. Gottesdiener (Addison Wesley 2002)(Work in progress #4)

(March 2003): Published review 0301-0062 in Computer Reviews of paper "An automated method for distributed systems software based on model extraction," IEEE Trans. SE, No 4(April 2002). (Work in progress #4)

(January 2003): Published review #0301-0108 in Computer Reviews of paper "A State-of-art survey on software merging" by T. Mens, IEEE Trans SE, No 5(May 2002). (Work in progress #4)

(December 2002): Peer Re-review of submission to IEEE Software Magazine.

(November 2002) Expert Witness in Copyright case (Work in progress #6)

(October 2002): Peer reviewed submitted 2 papers on Programming Languages for ACM 2003 "Symposium on Applied Computing."

(September 2002): Submitted Summer's research on stochastic debugging as a paper "Stochastic Models of Immature Software Processes" to ICSE 2003 (Work in progress #3). Rejected December 2002.

Peer review of paper for IEEE Software Magazine on nontechnical factors in software process improvement projects(Work in Progress #5).

Judged Computer Work at LA County Fair (Work in progress #6).

Reviewed proposal for C/C++ text for Leyh Pub., Austin, TX (Work in progress #4).

(July 2002): Presented paper "A Solvable Stochastic Model of Debugging" at SCI'2002(Work in progress #3)

Appointed as session chair at SCI'2002.

(June-July 2002): Peer review of paper being written for IEEE Software Magazine on XP (Work in progress #5)

(June 2002): Peer review of paper submitted to IEEE Software Magazine (Work in Progress #5)

(May 2002): Published book review #0205-0250 in Computer Reviews of "Branching Programs and Binary Decision Diagrams" by Ingo Wegener (SIAM 2000) (Work in progress #4)

(April 2002): Published Review #0205-0281 Computer Reviews of "Hyperauthorship: A Postmodern Perversion or Evidence of a Structural Shift in Scholarly Communication Practices?" by Blaise Cronin (Journal of the American Society for Information Science and Technology, Vol. 52, No. 7 (2001), pp. 558-569) (Work in progress #4)

(February 2002): Presented "A solvable stochastic model of software development" at CSUSB and UC Santa Barbara. Part of work in progress #3.

(January 2002): Prepublication review of magazine article for IEEE Software.

(October 2001): Reviewed paper on exception handling in ML for ACM 2002 "Symposium on Applied Computing." Reviewed paper for publication in Wiley's Software Focus MAGAZINE on tools for rigorous software development.

III. Service

A. Community Service Activities

An Inland Empire San Bernardino Symphony web page.

B. Advisement

See Section I.A.2

C. Services to Programs, Departments, College, University

Department Service

Graduate Coordinator for Advising (January 2003 ...)

Department Committees

Undergraduate curriculum committee

Member: forever.

Chair: 2001-2002

Graduate Committee

Member: September 2001-

Co-Chair: January 2003...

Seminar Committee -- Chair: September 2001-July 2002

College Committees

College: Ex officio member of CNS Curriculum Committee (September 2001-2002)

University Committees

CNS representative on the BATS Committee (2003...)

D. Other

See my web site

<http://www.csci.csusb.edu/dick/>