

Evan Golub

Department of Computer Science

University of Maryland

College Park, MD 20742

egolub@acm.org

<http://www.cs.umd.edu/~egolub/professional.shtml>

Educational Experience:

Fall 1992 - Spring 1999

University of Maryland - College Park - Ph.D. program - Department of Computer Science

Ph.D. Degree May 1999 - "*Empirical Studies in Parallel Sorting*"

Advisors: W. Gasarch, C. Kruskal

M.S. Degree May 1995 - "*Issues in Implementing PARKA Using the Techniques of CHAOS*"

Advisors: J. Hendler, J. Saltz

Fall 1991 - Spring 1992

Brooklyn College - CUNY - M.S. program - Department of Computer Science

Fall 1987 - Spring 1991

Brooklyn College - CUNY - B.S. program - Department of Computer Science

B.S. Degree: June 1991 - Summa Cum Laude with Department Honors

Employment Experience:

University of Maryland – Department of Computer Science

Senior Lecturer with Job Permanence (Spring 2013 - Present)

Assistant Director, HCIL (Fall 2006 - Present)

Lecturer with Job Permanence (Spring 2001 - Spring 2013)

Lecturer (Fall 1995 - Spring 2001)

Instructor for Computer Science courses and advisor to undergraduate students. Responsible for teaching courses on topics including human-computer interaction, object oriented programming, data structures, algorithms, discrete mathematics. Previously taught about Internet research and web page design, and personal computer applications. Work with the Digital/Design Cultures and Creativity Living/Learning program on courses and co-curricular activities. Developed, and later redesigned, a course in Internet applications and research for non-computer science majors. Redesigned the previous CS2 object oriented programming / data structures course. Participated in the refreshing of the current algorithms course. Created redesign option for the current CS1 introductory programming course. Developed new special topics courses for computer science undergraduates and interdisciplinary courses for the University Honors program.

Work on HCI research projects in the areas of educational technology, communities, and creativity support tools both individually, with other members of the Human-Computer Interaction Lab, and with graduate and undergraduate students. Assistant Director of Expansion for the HCIL as of Fall 2006. FIA-Deutsch Faculty Fellow as mentor for an undergraduate research team in 2013. Have worked with campus Gemstone and QUEST teams, and served on various departmental and University committees. Advise students in the computer science major on term-by-term course selection as well as overall academic planning, and work with student groups. A part of the University's "Academy for Excellence in Teaching and Learning" since Fall 2005.

Employment Experience (cont)

University of Maryland – Department of Computer Science

Graduate Assistant (Fall 1992 - Summer 1995)

Worked for the Department of Computer Science as a teaching assistant for Computer Science I & II teaching structured programming using Pascal as well as object oriented programming using C++, and taught as instructor for Discrete Structures. Taught a two-week UNIX workshop for the Department of Electrical Engineering. Worked as a teaching assistant for the Computer Science Center for a summer training program for officers of the Saudi Arabian Air Force that covered UNIX and C++. Worked as a research assistant for James Hendler and Joel Saltz in the area of parallel artificial intelligence systems.

Brooklyn College, CUNY

Adjunct Faculty (Spring 1992)

Worked as adjunct faculty instructor for the College-wide Core Studies Program course in mathematical and computer literacy that covered symbolic logic as well as UNIX shell programming.

Assistant System Administrator (Fall 1991 - Spring 1992)

Worked for the Department of Computer Science as an assistant system administrator adding new users, working with existing users, installing and maintaining software, writing shell scripts, keeping system backups and restoring files for users.

Part Time Staff (Fall 1989 - Spring 1991)

Worked for the University Learning Center as a peer tutor in the areas of symbolic logic and Pascal programming, as well as an instructional assistant for several remedial workshops and summer programs. I was also available as a consultant to assist students with their microcomputer application needs.

Publications:

Published Papers

- "Investigating Design Requirements for Children's 3D Printing Software." B. McNally, L. Norooz, A. Shorter, E. Golub. *Proceedings of the 16th International Conference on Interaction Design and Children*, 2017, Pages TBD.
- "Life as a Robot (at CHI): Challenges, Benefits, and Prospects for Attending Conferences via Telepresence" E. Golub, B. McNally, B. Lewittes, A. Shorter, and The Kids of Kidsteam. *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, 2017, 758-769.
- "To point or click, that is the question!" E. Golub. *Educational Technology: The Magazine for Managers of Change in Education*, 55(1). 2015.
- "Children initiating and leading cooperative inquiry sessions" J. Yip, E. Foss, E.M. Bonsignore, M. Guha, L. Norooz, E. Rhodes, B. McNally, P. Papadatos, E. Golub, and A. Druin. *Proceedings of the 12th International Conference on Interaction Design and Children*, 293-296, 2013.
- "Adolescent search roles" E. Foss, H. Hutchinson, A. Druin, J. Yip, W. Ford, E. Golub. *Journal of the American Society for Information Science and Technology*, 64(1), 173-189, 2013.
- "Cooperative Inquiry in Designing Technology in Life-Relevant Learning for Science" J. Yip, A. Druin, T. Clegg, M. Guha, G. Walsh, E. Golub, E. M. Bonsignore, E. Foss, *Teachers College Educational Technology Conference*, p. 82. 2012.

Published Papers (*cont*)

- "DisCo: a co-design online tool for asynchronous distributed child and adult design partners" G. Walsh, A. Druin, M. Guha, E. M. Bonsignore, E. Foss, J. Yip, E. Golub, T. Clegg, Q. Brown, R. Brewer, A. Joshi, R. Brown. *Proceedings of the 8th International Conference on Interaction Design and Children*, 2012, 11-19.
- "Children's Search Roles at Home: Implications for Designers, Researchers, Educators, and Parents" E. Foss, H. Hutchinson, A. Druin, R. Brewer, P. Lo, L. Sanchez, E. Golub. *Journal of the American Society for Information Science and Technology*, 63(3), 558-573, 2012.
- "Layered Elaboration" G. Walsh, A. Druin, M. Guha, E. Foss, E. Golub, L. Hatley, E. M. Bonsignore, S. Franckel. *Extended Abstracts of the 29th ACM Conference on Human Factors in Computing Systems*, 2011, 489.
- "Energy House" G. Walsh, A. Druin, E. Foss, E. Golub, M.L. Guha, L. Hatley, E. M. Bonsignore. *Extended Abstracts of the 29th ACM Conference on Human Factors in Computing Systems*, 2011, 513.
- "Clear Panels: A Technique to Design Mobile Application Interactivity" Q. Brown, E. M. Bonsignore, L. Hatley, A. Druin, G. Walsh, E. Foss, R. Brewer, J. Hammer, E. Golub. *Proceedings of 8th Conference on Designing Interactive Systems*, 2010, 360-363.
- "Connecting Generations: Developing Co-Design Methods for Older Adults and Children" B. Xie, A. Druin, J. Fails, S. Massey, E. Golub, S. Franckel, K. Schneideran. *Journal of Behavior & Information Technology*, July 2010, 1362-3001.
- "Toque: Designing a Cooking-Based Programming Language For and With Children" S. Tarkan, V. Sazawal, A. Druin, E. Golub, E. M. Bonsignore, G. Walsh, Z. Atrash. *Proceedings of the 28th ACM Conference on Human Factors in Computing Systems*, 2010, 2417-2426.
- "Children's Roles Using Keyword Search Interfaces at Home" A. Druin, E. Foss, H. Hutchinson, E. Golub, L. Hatley. *Proceedings of the 28th ACM Conference on Human Factors in Computing Systems*, 2010, 413-422.
- "Layered Elaboration: A New Technique for Co-Design with Children" G. Walsh, A. Druin, M.L. Guha, E. Foss, E. Golub, L. Hatley, E. M. Bonsignore, S. Franckel. *Proceedings of the 28th ACM Conference on Human Factors in Computing Systems*, 2010, 1237-1240.
- "How Children Search the Web with Keyword Interfaces" A. Druin, E. Foss, L. Hatley, E. Golub, M.L. Guha, J. Fails, H. Hutchinson. *Proceedings of the 8th International Conference on Interaction Design and Children*, 2009, 89-96.
- "Cross-Cultural Communication Through Pictures in an International Children's Online Community", A. Komlodi, W. Hou, A. Druin, J. Preece, E. Golub. *Proceedings of the 6th International Conference on Cultural Attitudes towards Technology and Communication*, 2008.
- "A Pilot Study of Supporting Children's Online Identity Representation in International Communities", W. Hou, A. Komlodi, J. Preece, A. Druin, E. Golub. Working paper. *Proceedings of the 12th International Conference on Human-Computer Interaction*, 2007, 1094-1098.
- "Adding Societal Impact and Reflection to Information Technology Fluency Classes", E. Golub, *The Journal of Literacy and Technology*, Volume 8, Number 3, December 2007.
- "Evaluating a Cross-Cultural Children's Online Book Community: Lessons Learned for Sociability, Usability, and Cultural Exchange", A. Komlodi, W. Hou, J. Preece, A. Druin, E. Golub, J. Albuero, S. Liao, A. Elkiss, P. Resnik. *Interacting with Computers*, Volume 19, Issue 4, July 2007, 429-586.

Published Papers (*cont*)

- "On Audience Activities During Presentations", E. Golub, *Journal of Computing Sciences in Colleges*, Volume 20, Number 3, 2005, 38-47.
- "Supporting Faculty Goals During Student Presentations via Electronic Note-Taking", E. Golub, *Proceedings of the 33rd Frontiers in Education Conference*, 2004.
- "Handwritten Slides on a TabletPC in a Discrete Mathematics Course", E. Golub, *Proceedings of the 35th SIGCSE Technical Symposium on Computer Science Education*, 2004, 51-55.
- "When does a random Robin Hood win?", W. Gasarch, E. Golub, and A. Srinivasan, *Theoretical Computer Science*, Volume 304, 2003, 477-484.
- "Dynamic Query Choropleth Maps for Information Seeking and Decision Making", K. Norman, H. Zhao, B. Shneiderman, and E. Golub, *Proceedings of Human-Computer Interaction International*, June 2003.
- "Constant Time Parallel Sorting: An Empirical View", W. Gasarch, E. Golub, and C. Kruskal, *Journal of Computer and System Sciences*, Volume 67, 2003, 63-91.
- "Dynamic Query Visualizations on World Wide Web Clients: A DHTML Approach for Maps and Scattergrams", B. Shneiderman, and E. Golub, *International Journal of Web Engineering and Technology*, Volume 1, Number 1, 2003, 63-78.
- "PC-based Development Environments and a Unix-centric Curriculum: Some Practical Issues", E. Golub, *Inroads – SIGCSE Bulletin*, Volume 33, 2001, 51-54.
- "A Survey of Constant Time Parallel Sorting." W. Gasarch, E. Golub, and C. Kruskal, *Bulletin of the European Association for Theoretical Computer Science*, Volume 72, 2000, 84-102.
- "Nonconstructive is Better for Sorting." W. Gasarch, E. Golub, and C. Kruskal, *Proceedings of the 30th Annual Southeastern International Conference on Combinatorics, Graph Theory, and Computing*, 1999.
- "Creation of a New Case for LUPSort: ALTERNATING.", E. Golub, and M. Augenstein, *Proceedings of the 22nd SIGCSE Technical Symposium on Computer Science Education*, 1991, 108-111.

Books, Chapters, Contributions

- "Clickers in a Classroom: Learning Outcomes and Student Reactions" – a case-study evaluation of using the TurningPoint classroom response system in CMSC102.
Book chapter accepted for a book called Teaching with Technology, Volume 2.
Edited by G.C.Clark and S.A.Clouser. Published online now, to be published in printed form in 2012.
- "A TurningPoint Guidebook for Educators"
Publisher: Lulu Enterprises, Inc. ISBN: 978-0-557-62668-7 Copyright 2010.
- "Leonardo's Laptop Chapter Questions"
Copyright 2004. Available through the MIT Press website for "Leonardo's Laptop" by Shneiderman.
- "A Microsoft Visual C++ Workbook"
Publisher: McGraw-Hill.
Copyright 2001. Accompanies "C++ Program Design" 3rd Edition by Cohoon & Davidson and available through their online learning center.
- "Nothin' But Net: Computers, The Internet, Research & You" (with Jandelyn Plane)
Publisher: Wiley & Sons. ISBN: 978-0-470-08927-X
Copyright 1998(1st ed), 2000(2nd ed), 2002(3rd ed), 2004(4th ed), 2006(5th ed).

Miscellaneous Articles

- "Reading *is* Fundamental"
Center for Teaching Excellence's Teaching & Learning News, Volume 19, Number 3, 2010.
- "Clickers in my Classroom: Some Good and Interesting, Some Unexpected"
Center for Teaching Excellence's Teaching & Learning News, Volume 19, Number 1, 2009.
- "PCs in the Classroom & Open Book Exams"
ACM's Ubiquity Magazine, Volume 6, Issue 9, March 18, 2005.
- "How can I register my program to run at a certain time?"
PocketPC Developers Network, Questions and Answers section, February 20, 2002.
- "A Brief History of the 'Net"
Internet Scholars Program resource, Summer 2001 (revised Summer 2002, Summer 2003)

Technical Reports

- "Social Norms of Students: Online Activities Surrounding a 'First Date' Scenario", University of Maryland Technical Report HCIL-2011-36, 2011.
- "Designing a Novice Programming Environment with Children", with Sureyya Tarkan, Vibha Sazawal, Allison Druin, Beth Foss, Leshell Hatley, Tejas Khatri, Sherri Massey, Greg Walsh, Germana Torres, University of Maryland Technical Report HCIL-2009-03, 2009.
- "Exploring Cross-Language Communication for Children via a Word Guessing Game" with Allison Druin, Anita Komlodi, Philip Resnik, Jenny Preece, Weimin Hou, Tawny Barin, Jerry Fails, Aaron Clamage, University of Maryland Technical Report HCIL-2008-14.
- "PhotoCrops: A first step towards computer-supported automatic generation of photographically interesting cropping suggestions", University of Maryland Technical Report HCIL-2007-12, 2007.
- "The Paperless Society and Me", University of Maryland Technical Report, 2005.
- "Using the BIRD Note-taking System During In-Class Presentations: An Example in an HCI Course", University of Maryland Technical Report HCIL-2003-34, 2003.
- "Empirical Studies in Parallel Sorting", University of Maryland Technical Report 4038, 1999.
- "Issues in Implementing PARKA Using the Techniques of Chaos", University of Maryland Technical Report CSC 945, 1995.
- "Increasing the Efficiency of Vectorization Through the Use of Multiple Sub-Zones with Automatically Mutually Exclusive Nodes: A Case Study Through the Ising Problem." with David Arnow, Brooklyn College Technical Report 92-14, 1992.

Submitted and In-Preparation Works

- "Accelerated Brainstorming Stations When Working in Intergenerational Design Teams"

Posters and Presentations:

- "To click, plick, point, card, or survey in class?" (work with William Gasarach and Jason Filippou)
23rd Annual Innovations in Teaching and Learning Conference, Poster Session, University of Maryland, College Park, May 12, 2017.
- "Life as a Robot (at CHI): Challenges, Benefits, and Prospects for Attending Conferences via Telepresence" (work with Brenna McNally, Becky Lewittes, Alazandra Shorter, and The Kids of Kidsteam)
35th Annual ACM Conference on Human Factors in Computing Systems, May 9, 2017.
- "Evaluating Student Response Systems: What Works and What are the Alternatives When Things Don't Work So Well" (with fellow panelists Peggy Antonisse and Brendan Dooley)
7th Annual Innovations in Teaching and Learning Conference, University of Maryland, Apr 19, 2013.
- "Tiptoeing into Blended Learning"
16th Annual Lilly-East Conference on College and University Teaching, June 1, 2012.
6th Annual Innovations in Teaching and Learning Conference, University of Maryland, Apr 27, 2012.
- "Computational Thinking in CS" (with William Gasarch) and "HCI and CS"
Summer High School Outreach Program, University of Maryland, August 9-11, 2011.
- "Visual Design and Information Visualization" [*Invited Talk*]
44th Annual APLIC Conference, March 29, 2011.
- "Problems as Puzzles" (with William Gasarch)
CS4HS Workshop, University of Maryland, July 14, 2010.
- "Exploring 'Hidden' Costs of Technologies: Time and Money for Faculty and Students" (with Elizabeth Foss and Robin Brewer)
14th Annual Lilly-East Conference on College and University Teaching, June 3, 2010.
- "Clickers in the Undergraduate Classroom: Success Stories and Cautionary Tales"
3rd Annual Innovations in Teaching and Learning Conference, University of Maryland, Apr 24, 2009.
- "Clickers in the Undergraduate Classroom: Experiences, Opportunities, and Lessons Learned"
13th Annual Lilly-East Conference on College and University Teaching, April 17, 2009.
- "Children's Design Ideas for a Novice Programming Tool" (work with Sureyya Tarkan*, Vibha Sazawal*, Allison Druin, Beth Foss, Leshell Hatley, Tejas Khatri, Sherri Massey, Greg Walsh, Germana Torres)
40th Annual SIGCSE Technical Symposium, March 6, 2009 - Poster session.
- "Capitalizing on Technology in the Classroom"
14th Annual Higher Education Campus Technology Conference, July 30, 2007.
- "Wireless Communication in the Classroom: A "Back Channel" to the Learning Process?" (work with Tracy Kennedy, Barbara Stroope*, Kerk Kee, Alison Powell, Sean Zehnder)
Association of Internet Researcher's IR 6.0: Internet Generations, October 5-9, 2005.
- "Electronic Transparencies in the Classroom"
12th Annual Teaching with Technology Conference, University of Maryland, April 8, 2005.
- "Supporting Faculty Goals During Student Presentations via Electronic Note-Taking"
33rd Frontiers in Education Conference, October 20-23, 2004.

Posters and Presentations (*cont*)

- "On Audience Activities During Presentations"
20th Annual Consortium for Computing Sciences in Colleges Eastern Conference, Loyola College, October 15, 2004.
- "BIRD – A Low Overhead, Real-Time Display and Note-Taking System"
Research Review Day, University of Maryland, March 19, 2004 - Poster session.
35th Annual SIGCSE Technical Symposium, March 6, 2004 - Poster session.
- "Handwritten Slides on a TabletPC in a Discrete Mathematics Course"
35th Annual SIGCSE Technical Symposium on Computer Science Education, March 3-7, 2004.
- "Enabling Electronic Notetaking in the Classroom"
7th Annual Lilly-East Conference on College and University Teaching, April 5, 2003.
- "BIRD – A Real-Time Note-Taking System for Students and Faculty"
10th Annual Teaching with Technology Conference, University of Maryland, April 4, 2003.
- "Choropleth Maps Go To The Web" (work with Ben Shneiderman, Kent Norman, Haixia Zhao, Wayne Menezes)
19th Annual HCIL Symposium and Open House, University of Maryland, May 31, 2002.
- "Looking at Information Technology as an Individual, a Group, and as a Society" (work with Jandelyn Plane, Douglas Oard, Claude Walston, Wayne McIntosh, Megan McCormick)
8th Annual Teaching with Technology Conference, University of Maryland, March 30, 2001.
- "Nonconstructive is Better for Sorting." (work with William Gasarch*, Clyde Kruskal)
30th Annual Southeastern International Conference on Combinatorics, Graph Theory, and Computing, March 8-12, 1999.
- "Creation of a New Case for LUPSort: ALTERNATING." (work with Moshe Augenstein)
22nd SIGCSE Technical Symposium on Computer Science Education, March 7-8, 1991.

Gifts and Grants:

- Future of Information Alliance (UMD)
2017: A spark grant to support a pilot project called "The Rest of the Story" to explore how 360-degree content can augment traditional journalism to help rebuild trust. This pilot was undertaken with undergraduate and graduate students in computer science and journalism. Grant included hardware funding and individual stipends.
- Future of Information Alliance (UMD), Robert W. Deutsch Foundation
2013: A seed grant to support the development of a "Citizen Journalists Toolkit" resource, an undergraduate student project to explore how regular citizens could use mobile devices and social media to document events on the National Mall and share them with the world. Grant included hardware funding and individual stipends.
- Turning Technologies
2010: A gift of an RF Receiver, ResponseCard AnyWhere receiver, and set of 75 ResponseCard XR student units in support of continued exploration of clicker use in the classroom.

Gifts and Grants (*cont*)

- Microsoft Corporation
2003-2006: Support for continued exploration of the use of TabletPC in the classroom and integration of new ideas into note-taking project and a gift of an HP slate TabletPC.
2002: A multi-year gift of a department-wide Academic Alliance license for Visual Studio. An IBM Thinkpad and a Toshiba TabletPC in support of generating ideas related to technology ubiquity.
2001: A gift of two iPAQ PocketPC computers and related expansion sleeves and peripheral devices, in support of the development of a short course in embedded Visual Basic programming.
1999-2002: A gift of a 20 NT workstation teaching lab, 200 copies of Visual C++ for student home use and funding in support of the development of new techniques and methods of teaching introductory computer science courses.

Teaching:

Summary of Courses

University of Maryland

- **CMSC 102** - Introduction to Information Technology
A course for non-majors introducing Internet technologies (telnet, e-mail, WWW, HTML) with some research applications.
- **CMSC 103** - Introduction to Computer Applications
A course for non-majors introducing them to basic computer usage and common applications (Windows, word processing, spreadsheets, databases).
- **CMSC 113** - Computer Science II
A majors course covering common data structures such as binary trees and linked lists and introducing object oriented programming using C++.
- **CMSC 131(H)** – Object Oriented Programming I
A majors course introducing students to the foundations of object oriented programming and basic program design and testing.
- **CMSC 214** - Computer Science II
A majors course covering the use of data structures such as doubly linked lists, binary search trees, heaps, hash tables and graphs and introducing the use of templates and inheritance in C++. (This course replaced CMSC 113 when the department moved to a three course introductory sequence and represented a major change in the course structure and content.)
- **CMSC 250(H)** (*formerly CMSC 150*) - Discrete Mathematics
A majors course covering topics in discrete mathematics such as formal logic, predicates, induction, set theory and probability.
- **CMSC 298G** - Special Topics in Computer Science: Introduction to PocketPC Programming
A two-credit special topics majors course meant to introduce students to the issues involved in programming applications with graphical user interfaces - specifically looking at Embedded Visual Basic.
- **CMSC 298R** - Special Topics in Computer Science: Computer Topics Reading Group
A one-credit special topics course designed for late sophomore and early junior Computer Science Majors meant to offer a guided exploration of various areas in CS as well as introduce and discover resources for staying in touch with current trends in the field.
- **CMSC 351** - Introduction to Algorithms
A majors course covering topics such as algorithm design and asymptotic analysis.

Summary of Courses (*cont*)

- **CMSC 389G** - Getting ExciTED about Computing and Technology
A one-credit special topics majors course exploring and discussing the diverse areas of computing through the lens of TED talks.
- **CMSC 433** - Programming Language Technologies and Paradigms
A majors course covering concurrent programming as supported by different languages and frameworks.
- **CMSC 434** (*sometimes cross-listed as CMSC 828S*) - Human Factors in Computer and Information Systems
A majors course covering fundamental concepts involved in human-computer interaction.
- **CMSC 498I** - Programming the iPhone
A majors course covering mobile development, with specifics about the iPhone OS platform.
- **HDCC 105** - Introduction to Digital Cultures and Creativity I
A course for the University Honors DCC Living/Learning program that explores the history of digital technologies, how they impact society, and how they have been used to establish new creative outlets.
- **HDCC 106** - Introduction to Digital and Creativity II: Users, Technology, and Design
Second course in the two-year Digital Cultures and Creativity honors living/learning program, with an HCI focus.
- **HDCC 208F** - Designing Technology for and with Humans
A course for the University Honors DCC Living/Learning program that explores Human-Computer Interaction for a mixed-majors audience.
- **HDCC 208N** - Research Methods and Practices for Computing and Interaction
Second-year course with a focus on research methods and developing a capstone proposal in the two-year Digital Cultures and Creativity honors living/learning program.
- **HDCC 209C** - Practicum in Digital Cultures and Creativity
A research course for the University Honors DCC Living/Learning program with a classroom component that explored research techniques, pitching proposals, and reporting results.
- **HONR 208W** - Digital Images: Art, Science, and Ethics
An updated version of HONR 279K for the University Honors program exploring digital image creation and manipulation within the context of art, science, and ethics within society.
- **HONR 279K** - Art, Math, Programming, and Research in the World of Digital Images & Photography
A course for the University Honors program using digital photography as the central theme to explore a wide variety of topics.
- **INST 717** - Internship Practicum in Human-Computer Interactions
A course for the Human-Computer Interaction Masters program in the iSchool where students are guided on undertaking a summer project or internship and drawing connections between it and their academic work.

Brooklyn College, CUNY

- **Core Studies 5** - Programming and Mathematical Reasoning
A general studies course required for all undergraduate students covering both formal logic and basic computer programming in either Pascal or the C-Shell scripting language.

Course Development (*courses offered*)

CMSC102: Introduction to Information Technology

Created, and later revised, a new course to fit changing needs of non-science majors. Focuses on Internet-centric technologies, and how they can be used in their academic as well as personal activities.

First offered: Spring 1996 Redesigned: 2005 University CORE Approval: 2007

CMSC131: Object-Oriented Programming I

Redesigned existing course to reflect changes in our student body and to reflect new educational approaches.

First offered: Fall 2016

CMSC214: Computer Science II

Redesigned existing CS2 course (CMSC113) to reflect changes in programming languages and paradigms. Introduced a project model focused on a single “product” being built and rebuilt during the semester as the class learned new tools.

First offered: Spring 1997

CMSC 298G: Special Topics in Computer Science: Introduction to PocketPC Programming

Created new course to allow (primarily) sophomore-level students to have an opportunity to be introduced to GUI programming, specifically using embedded Visual Basic on the PocketPC.

First offered: Winter 2001

CMSC 298R: Special Topics in Computer Science: Computer Topics Reading Group

Created new course designed for late sophomore and early junior Computer Science Majors. Meant to offer a guided exploration of various areas in CS as well as introduce and discover resources for staying in touch with current trends in the field.

First piloted as a 298A: Spring 2004

CMSC 351: Introduction to Algorithms

Refreshed and extended topics covered in existing algorithms course to reflect changes in the goals of the course as defined by the department, applications of interest, and composition of students.

CMSC 389G: Getting ExcITED about Computing and Technology

Created new course to encourage and guide junior and senior level computer science students to explore and discuss the diverse areas of computing through the lens of TED talks.

First offered: Winter 2015

CMSC 498I: Programming the iPhone

Worked with Adam Porter and Chuck Pisula of Apple Inc. in designing a new majors course covering mobile development, with specifics about the iPhone OS platform.

First offered: Spring 2010

HDCC 105: Introduction to Digital Cultures and Creativity I

Redesigned the first course for the University Honors DCC Living/Learning program that explores the history of digital technologies, how they impact society, and how they have been used to establish new creative outlets so that the technical and non-technical topics were strongly integrated throughout the semester.

HDCC 106: Introduction to Digital and Creativity II: Users, Technology, and Design

Redesigned one option for the second course in the University Honors DCC Living/Learning program to introduce an interdisciplinary group of students to the multifaceted nature of technology design and approaches from the HCI design community.

Course Development (*courses offered*) (*cont*)

HDCC 208F: Designing Technology for and with Humans

A course for the University Honors DCC Living/Learning program that explores Human-Computer Interaction for a mixed-majors audience.

First offered: Fall 2012

HDCC 208N: Research Methods and Practices for Computing and Interaction

A course for the University Honors DCC Living/Learning program that introduces students to research methods appropriate to science and technology exploration as well as scaffolding students as they create a capstone project proposal.

First offered: Fall 2015

HDCC 209C: Practicum in Digital Cultures and Creativity

A research course for the University Honors DCC Living/Learning program with a classroom component that explored research techniques, pitching proposals, and reporting results.

First offered: Spring 2012

HONR 208W: Digital Images: Art, Science, and Ethics

Created an updated version of HONR 279K for the University Honors program exploring digital image creation and manipulation within the context of art, science, and ethics within society.

First offered: Fall 2011

HONR 279K: Art, Math, Programming, and Research in the World of Digital Images & Photography

Created new course designed for the University Honors program. Using digital photography as the central theme, this course explores topics in art, mathematics, computer programming, human-computer interaction, and ethics.

First offered: Fall 2006

INST 717: Internship Practicum in Human-Computer Interactions

Created new course designed for the Human-Computer Interaction Masters program in the iSchool. Students are guided on undertaking a summer project or internship and drawing connections between it and their academic work .

First offered: Summer 2012

Course Development (*design commissioned but course not offered*)

CMSC 298M: Designing our Future: The Mobility Initiative

This course was designed for students from the Banneker-Key and Maryland Incentive Awards Program participating in the pilot of the Mobility Initiative at Maryland. The goal of this course is to present 15-20 of these students with an introduction to Human-Computer Interaction, with a focus on mobile applications for use in an academic environment.

UNIV 433: AITC Capstone Course

This course was designed to be the capstone course of a four-semester sequence in the University's "Applied Information Technology Certificate" program. The course would provide a framework within which students would apply their gained knowledge of information technology to a project within the scope of their major and then share their experiences with the interdisciplinary members of the class.

Short Courses / Workshops

- **HCIL Symposium One-Day Tutorial – New Methods for Designing for and with the iChild, with Allison Druin** (Summer 2010-2012)
A one-day tutorial that gives an overview of design methods which work well when working with children as design partners, and hands-on experience with four or more of these techniques in realistic scenarios.
- **HCIL Symposium One-Day Tutorial - Introduction to Human-Computer Interaction** (Summer 2002-2003, 2005-2008)
A one-day tutorial that gives a brief overview of the area of Human-Computer Interaction, and opens the participants to ideas of how and where these issues and related techniques can be applied in their work.
- **The New Media: Blogs** (Summer 2006)
An afternoon session about the history and development of the modern blog, some legal and ethical issues related to having a blog, and basic blogging features as part of the State Department's "Journalism and the New Media" program for young journalists from Azerbaijan.
- **HCI Tutorial for OIT** (Fall 2005)
A half-day tutorial that gives a brief overview of the area of Human-Computer Interaction, and opens the participants to ideas of how and where these issues and related techniques can be applied in their work.
- **Bridge Program - UNIX Short Course** (Summer 1994)
A course for high school seniors thinking about attending college giving a basic introduction to the UNIX operating system, e-mail and usenet news.

Service:

Department Service

- Undergraduate Orientation/Training Session Leader
Fall 2016 - Present
- Faculty liaison for Computer Science Instructional Center
Summer 2003 - Present
- Department UPE Honor Society chapter
Faculty Coordinator: Fall 2001 - Present
Chair, committee to form local Chapter: Spring 2001
- University of Maryland High School Programming Contest Judge and/or Problem Writer
Spring 2001, 2003, 2005-2013, 2015-2017
- Botball Liaison
Fall 2006 - Present
- Department of Computer Science Departmental Council
Fall 2005 - Spring 2006, Fall 2013 - Spring 2014, Fall 2016 - Present
- Department Middlestates Committee
2008 (CMSC351), 2010 (CMSC250), 2012 (CMSC250), 2014 (CMSC434), 2016 (CMSC436)
- Department representative on campus Honor Board
April 2010 - May 2012
- Director of Microsoft Undergraduate Learning Lab
Summer 1999 - Summer 2003
- Advisor to ACM Student Chapter
Fall 1997 - Spring 2002
- Department of Computer Science Graduate Student Executive Council
Fall 1992 - Spring 1995

College Service

- Corporate Scholars Program "Matching" Committee
Spring 2009, 2011, 2012
- STAND High School Internship Research Program Mentor - Amber Crutchfield
Fall 2006 - Spring 2007
- Math SPIRAL Outreach Program Presentation Advisor
Summer 2006
- STAND High School Internship Research Program Mentor - Tiara Smith
Fall 2005 - Spring 2006
- Computer Engineering ABET Certification Team Member
Fall 1998 - Spring 2002
- Hiring Committee for Assistant Director of Undergraduate Education
Winter 2000
- Maryland Governor's Institute for Technology Planning Committee and Technical Advisor
Summer 2000

University Service

- University of Maryland "Academy for Excellence in Teaching and Learning"
Member, 2008 - Present
Fellow, 2005 - 2008
- Terrapin Photography Club (and Events Photographer)
Faculty Advisor: Fall 2006 - Present
Member: Spring 2006 - Fall 2006
- QUEST Faculty Mentor
"Metapod Consulting" - Fall 2016
"C3 Consulting" - Spring 2016
- University of Maryland Mobility Initiative
Summer 2008 - Summer 2012
- University Senate Educational Affairs Committee
Fall 2008 - Spring 2010
- CTE-UTLP Graduate Teaching Assistant Program participant
Spring 2010, Fall 2011
- Center for Teaching Excellence Graduate Teaching Assistant Orientation
Summer 2008
- Doctoral Dissertation Committee - Nancy Hensler-McGinnis
"The Use of Technology in Stalking & Harassment"
Spring 2006 - Spring 2008 (Student Successfully Defended)
- Graduate Research Interaction Day Faculty Judge
Spring 2003, Spring 2004, Spring 2008
- Gemstone Team Final Project Discussant
"Team RIO" - Spring 2014
"Innovations" - Spring 2004
- Award for CTE Departmental Excellence and Innovation in Teaching Selection Committee Chair
Spring 2003
- Gemstone Team Final Project Discussant - "Adaptive User Interfaces"
Spring 2003
- Internet Scholars Program Summer WebShop Participant/Speaker/Technical Advisor
Summer 2001 - Summer 2004
- Applied Information Technology Citation Committee
Summer 1999 - Spring 2002
- Resident Life Outreach Program
"What do students expect of Faculty?" - Spring 2003
"Social Implications of the Internet" - Fall 1999
"Internet Addiction" Roundtable Discussion - Spring 1999
HTML Design Seminar - Fall 1997
- Continuing Quality Improvement Task Force - Computer Access Team
Spring 1994

Professional Service

- Paper Referee
 - Cognitive Science Society conference (Spring 2002)
 - Consortium for Computer Sciences in Colleges: Eastern conference (Spring 2003)
 - Frontiers in Education conference (Spring 2002, 2005, 2006)
 - Interaction Design and Children (Spring 2014)
 - ITiCSE conference (Fall 2001, 2002, Spring 2006, 2007, 2009)
 - SIGCHI conference (Fall 2006, 2008-2012, 2015-2016)
 - SIGCSE conference (Fall 1992-1993, 1995-1996, 1999-2013, 2016)
 - Workshop on the Impact of Pen-based Technology (Fall 2005)
 - Universal Access in the Information Society (2012)
- Proposal Reviews, Book Reviews, and Contributions
 - Java: How to Program, 10th Edition for Prentice Hall (Fall 2013-Spring 2014)
 - iPhone Programming Textbook proposals for Pearson (Fall 2010)
 - Computer Science for Fun by McOwan and Curzon (Summer 2006)
 - Objects, Abstraction, Data Structures, and Design: Using Java by Koffman and Wolfgang (Spring 2004)
 - Leonardo's Laptop by Shneiderman (Winter 2004)
 - Designing the User Interface by Shneiderman and Plaisant (Summer 2003 - Winter 2004)
 - Data Structures and Algorithms in C++ by Goodrich, Tamassia, and Mount (Fall 2002)
 - Absolute C++ by Savitch (Spring 2001)
 - Java Collections: An Introduction to Abstract Data Types, Data Structures, and Algorithms by Watt and Brown (Summer 1999)
 - Pascal Programming and Problem Solving by Leestma and Nyhoff (Summer 1995)
- Grant Reviewer
 - Netherlands Organization for Scientific Research (Spring 2010)
 - Israel Science Foundation (Spring 2006)
- Session Synthesizer – International Society for the Scholarship of Teaching and Learning
Fall 2006
- Technology Chair for the Interaction Design and Children 2004 conference
Winter 2004 - Summer 2004
- Website Chair for the ACM's SIGWEB Hypertext 2002 conference
Fall 2001 - Summer 2002

Outside Service

- Co-design session on the future of the Lincoln Memorial's visitor experience
August 2016
- Co-design session on President Obama's "Every Kid in a Park" initiative
May 2015
- Usability Review of GSA's "kids.gov" website
May 2010

Outside Service (*cont*)

- Usability Review of PBS Kids' "Backyard Jungle" website
April 2006
- WashingtonPost.com Advisory Panel
Spring 2004 - Present
- Technical Consultant for National University of Rwanda Distance Education Project
Summer 2002 - Spring 2003
- External Reviewer for National University of Rwanda's Computing Curriculum
Summer 2001
- Mentor to North Bethesda Middle School "BotBall 2000" team
Spring 2000
- Brooklyn College Five Year Institutional Plan Steering Committee
Spring 1990 - Fall 1990
- Brooklyn College Department of Computer Science Undergraduate Curriculum Committee
Spring 1990 - Spring 1992

Awards and Honors:

- University of Maryland, Future of Information Alliance "FIA Innovation Faculty" Fellow, 2017.
- 1st Place with Oliver and Alex (Barrie School students), Shaping the Future of Learning Challenge from the Future of Information Alliance, the Library of Congress, the National Geographic Society, the National Park Service, and the Newseum, December 5th-6th, 2014.
- Monthly MVP, Ricoh/CNN "Spherical Report 360" photojournalism contest for entry "President Obama delivering remarks on occasion of Maker Faire", June 2014.
- University of Maryland, Future of Information Alliance "FIA-Deutsch Faculty" Fellow, 2013.
- University of Maryland "Academy for Excellence in Teaching and Learning" Fellow, 2005-2008.
- 2nd Place, Best Paper Award Competition, 20th Annual Consortium for Computing Sciences in Colleges Eastern Conference, 2004.
- Finalist: Outstanding Faculty Award, University of Maryland, Parents Association, 2003.
- Teaching Excellence Award, University of Maryland, Department of Computer Science, 2003.
- University of Maryland Center for Teaching Excellence Lilly Fellow, 2002-2003.
- Advising Excellence Award, University of Maryland, Department of Computer Science, 2002.
- Outstanding Outreach Program (Social Implications of the Internet), University of Maryland, Department of Resident Life, 1999.
- Honorable Mention: Teaching Assistant Award, University of Maryland, Department of Computer Science, 1994.

Student Advising & Research:

Academic Advising

- Advising of Undergraduate Students

In-office advising hours during which I advise students on available courses to fulfill the department's graduation requirements as well as develop the interests of the student, and help to develop graduation plans. Provide information to students interested in entering the program. Have assisted with open houses, new and transfer student orientations, transfer equivalency course evaluations, and the administering and grading of placement exams.

Supervised and Co-Supervised Research

- Tom Hausman (undergraduate, Journalism), Hannah Klarner (masters, Journalism), Abby Mergenmeier (masters, Journalism), Jordan Mess (undergraduate, Computer Science) – "The Rest of the Story"
Fall 2016 - Spring 2017
- Ryan Dorson (Masters student scholarly paper) – "Analyzing the results of a usability study on CrossScan within the framework of the Android Design Principles and Material Design"
Spring 2016 (*with Jon Froehlich*)
- Ryan Dorson (undergraduate student) – "Crossword Scan"
Fall 2013 - Fall 2015 (*with David Jacobs*)
- H. Kofi Gumbs (undergraduate student) – "ScienceKit and Plants"
Spring 2014
- Jenny Hottle, Kelsey Hughes, Claire Naylor, Eliana Vornov (undergraduate students) – "Citizen Journalists Toolkit"
Fall 2012 - Spring 2014
- Tobin Valenstein (undergraduate student) – "Science Kit"
Fall 2011 - Spring 2012 (*with Tammy Clegg*)
- Srividya Ramaswamy (Masters student scholarly paper) – "Comparing the Efficiency of Two Clustering Techniques: A Case-Study Using Tweets"
Summer 2010 (*research done with Nick Roussopoulos*)
- Robin Brewer (undergraduate student) – "Restaurant Menu of the Future"
Fall 2009 - Spring 2010 (*with Allison Druin*)
- Beth Foss and Leshell Hatley (graduate students) – "Children's Internet Searching"
Summer 2008 - Summer 2009 (*with Allison Druin*)
- Sonia Franckel (undergraduate student) – "GeoStories: Supporting Mobile Storytelling for Children"
Fall 2008 - Spring 2009 (*with Allison Druin*)
- Sonia Franckel (undergraduate student) – "Designing an Intergenerational Blog"
Fall 2007 - Spring 2008 (*with Ben Bederson and Allison Druin*)
- Stephen Wass (undergraduate student) – "Exploration of Automated Image Cropping for Personal Photography"
Fall 2005

Supervised and Co-Supervised Research (*cont*)

- Rafi Khan and David Apgar (undergraduate students) – "Supporting Ad-hoc Wireless Communities"
Fall 2003
- Yu Deng (graduate student) – "The Metadata Architecture for Data Management in Web-based Choropleth Maps"
Summer 2001 - Winter 2002 (*with Ben Shneiderman*)
- Haixia Zhou (graduate student) – "Design Features and Software Architectures of Web-based Choropleth Map Services"
Summer 2001 (*with Ben Shneiderman*)
- Amit Thakkar (undergraduate student) – "Help Files for Mapping Software"
Summer 2001 (*with Ben Shneiderman*)

Professional Development:

- Teaching and Learning Transformation Center Elevate Fellow.
Focus on active learning in large-lecture courses. 2015.
- Center for Teaching Excellence Summer Institute on Teaching and Learning with New(er) Technologies.
Focus on Mobile and Blended Learning. 2011.
- Center for Teaching Excellence Summer Institute on Teaching and Learning with New(er) Technologies.
Focus on Expanding Classroom Response Device Use. 2008.
- East-Asian Science and Technology Fellow, 2004-2005.

Societies and Professional Organizations:

- Association for Computing Machinery
- Phi Beta Kappa Society
- Sigma Xi Scientific Research Society
- Special Interest Group on Computer Science Education
- Upsilon Pi Epsilon Honor Society for the Computing Sciences