Kevin Sanft

www.kevinsanft.com/contact.html

Education

9/2006-Present — University of California — Santa Barbara, CA
PhD program in Computer Science
Emphasis: Computational Science and Engineering
Advisor: Linda Petzold

9/1998-5/2002 — Augsburg College — Minneapolis, MN
Bachelor of Science in Computer Science
Bachelor of Arts in Mathematics

Teaching

1/2009-3/2009 — University of California — Santa Barbara, CA
Teaching Assistant (TA)
Dept. of Computer Science
- TA for Linda Petzold's graduate course in Numerical Simulation of ODEs (CS 211B, cross-listed in ME/Math/ECE/ChemE)

1/2002-5/2002 — Augsburg College — Minneapolis, MN
Supplemental Instructor (SI)
Dept. of Mathematics
- SI for MAT 146 Calculus II

9/2001-12/2001 — Augsburg College — Minneapolis, MN
Tutor
Dept. of Mathematics
- Individual and group tutor, with a specialty in discrete mathematics

Professional

6/2005-9/2006 — Medtronic, Inc. — Saint Paul, MN
Statistical Programmer
Bioinformatics Group
Dept. of Cardiac Rhythm Management Clinical Research
- Developed software for more than a dozen medical device clinical trials
- Worked on the database migration project for the Systems Longevity Study

2/2003-5/2005 — Mayo Clinic — Rochester, MN
Data Analyst
Div. of Biostatistics
Dept. of Health Sciences Research (HSR)
- Statistical programmer for NIH-funded “Epidemiology and Genetics of Parkinson's Disease” research study (PI: Dr. Walter Rocca)

- Created software applications to collect, process and validate data and to generate reports
- Member of the software design team for an automated database and data entry interface generator

6/2002-10/2002 Retek, Inc. Minneapolis, MN
6/2001-8/2001 (acquired by Oracle in 2005)

Software Engineer (6/2002-10/2002)

- Worked in an extreme programming environment developing Retek's Invoice Matching 10.2 release, a web-based Java application
- Designed and executed test cases during development of Retek Price Matching 10.0

Software Engineer Intern (6/2001-8/2001)

- Developed web-based reporting component of Retek's Merchandising System 10.0 release

Publications

D.T. Gillespie, Y. Cao, **K.R. Sanft**, L.R. Petzold. *Abridging chemical reaction networks: it's a subtle business*. Proc. Foundations of Systems Biology in Engineering (FOSBE) Conf. 2009 (to appear).

E.C. Kwei, J.E. Shoemaker, **K.R. Sanft**, L.R. Petzold, F.J. Doyle III. *Model-based therapeutic target discrimination using stochastic simulation and robustness analysis in an insulin signaling pathway*. Proc. FOSBE Conf. 2009 (to appear).

D.T. Gillespie, Y. Cao, **K.R. Sanft**, L.R. Petzold. *The subtle business of model reduction for stochastic chemical kinetics*. J Chem Phys 2009; 130, 064103.

E.C. Kwei, **K.R. Sanft**, J.E. Shoemaker, L.R. Petzold, F.J. Doyle III. *Modeling and systems analysis of insulin signaling*. Proc. AIChE Annual Meeting 2008.

E.C. Kwei, **K.R. Sanft**, L.R. Petzold, F.J. Doyle III. *Systems Analysis of the Insulin Signaling Pathway*. Proc. 17th IFAC World Congress, July 2008.

R. Frigerio, M.M.B. Breteler, L.M.L. de Lau, **K.R. Sanft**, J.H. Bower, J.E. Ahlskog, B.R. Grossardt, M. de Andrade, D.M. Maraganore, W.A. Rocca. *Number of children and risk of Parkinson's disease.* Movement Disorders 2007; 22(5):632-9.

R. Frigerio, **K.R. Sanft**, B.R. Grossardt, B.J. Peterson, A. Elbaz, J.H. Bower, J.E. Ahlskog, M. de Andrade, D.M. Maraganore, W.A. Rocca. *Chemical exposures in Parkinson's disease:A population-based case-control study.* Movement Disorders 2006; 21(10):1688-92.

W.A. Rocca, B.R. Grossardt, B.J. Peterson, J.H. Bower, M.R. Trennery, J.E. Ahlskog, **K.R. Sanft**, M.de Andrade, D.M. Maraganore. *The Mayo Clinic cohort study of*

personality and aging:design and sampling,reliability and validity of instruments,and baseline description. Neuroepidemiology 2006; 26(3):119-29.

R. Frigerio, A. Elbaz, **K.R. Sanft**, B.J. Peterson, J.H. Bower, J.E. Ahlskog, B.R. Grossardt, M. de Andrade, D.M. Maraganore, W.A. Rocca. *Education and occupations preceding Parkinson's disease:A population-based case-control study.* Neurology 2005 Nov; 65(10):1575-83.

Awards

Graduate:
NSF Graduate Research Fellowship
NSF IGERT Fellowship (Computational Science and Engineering)
NSF Graduate Research Fellowship Honorable Mention (2007)
Lisa Kaz Graduate Fellowship

Undergraduate:
Graduation with Distinction (highest honors)
Honors Program Graduate
Departmental Honors (Mathematics)
NSF CSEM Scholarship
Augsburg Faculty Leadership Scholarship
Augsburg College Regents' Scholarship
Bev Durkee Mathematics Scholarship
Dean's List (8/8 semesters)
Alpha Chi National College Honor Scholarship Society (top 5%)
Hull Foundation Scholarship (full tuition U of MN, declined)

Presentations

Multiscale computational modeling of metabolic insulin signaling pathways. [Poster] Bioengineering Insights, Santa Barbara, CA, 26 October 2009.

Multiscale computational modeling of metabolic insulin signaling pathways. [Poster] Institute for Collaborative Biotechnologies (ICB) Army-Industry Collaboration Conference, Santa Barbara, CA, 4-5 March 2009.

An introduction to regular expressions in SAS. Medtronic CRM Statistical Programming Forum, Saint Paul, MN, 12 October 2005.

Advanced programming in an XP environment. Medtronic CRM Statistical Programming Forum, Saint Paul, MN, 31 August 2005.

Using JavaScript for edit checks in web forms. Mayo Clinic Dept. of HSR SUMIT [Software, Unix, Mainframe, Internet, Technology] Seminar, Rochester, MN, 13 July 2004.

My role as a Data Analyst and advice for math majors. Augsburg College Mathematics Department Colloquium, Minneapolis, MN, 18 February 2004.

Unix scripting, gawking, and the SED. Mayo Clinic Dept. of HSR SUMIT Seminar, Rochester, MN, 10 February 2004.

Calculating the motion of waves. Pi Mu Epsilon Undergraduate Research Conference, Collegeville, MN, 13 April 2002.