

DAVID P. CHEN

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EDUCATION

Stanford University, Stanford, CA Ph.D. in Biomedical Informatics	In Progress
The Johns Hopkins University, Baltimore, MD M.S. in Bioinformatics	2006
University of Southern California, Los Angeles, CA B.S. in Computer Science <i>cum laude</i>	2003

HONORS AND AWARDS

William R. Hewlett Fellowship (a Stanford Graduate Fellowship)	June 2008
Next-Gen Tomorrow's PI, Genome Technology Magazine	January 2008
Student Travel Award, Pacific Symposium on Biocomputing	January 2008
National Institutes of Biomedical Imaging and Bioengineering Fellowship	October 2007
National Library of Medicine Training Grant recipient	September 2006
National Institutes of Health Post Baccalaureate Intramural Research Training Award	August 2005 - August 2006
Presidential Scholar, University of Southern California	August 1999 - May 2003
Thematic Options Program, University of Southern California	August 1999 - August 2001
Resident Honors Program, University of Southern California	August 1999 - August 2000

JOURNAL PUBLICATIONS

- Chen DP**, Morgan, AA, Butte AJ. Chronological Age Prediction using commonly measured blood biomarkers. In Preparation
- Yao J, **Chen D**. Live level set: A hybrid method of livewire and level set for medical image segmentation. *Med Phys*. 2008 Sep;35(9):4112-20.

PEER REVIEWED CONFERENCE PUBLICATIONS

- Zimmerman NH, Patel C, **Chen DP**. CHMP: A collaborative medical history portal. *AMIA Annu Symp Proc*. 2008 Nov 6:859-63.
- Dudley J, **Chen DP**, Butte AJ. Using SNOMED-CT for translational genomics data integration. *KR-MED* 2008.
- Chen DP**, Weber SC, Constantinou PS, Ferris TA, Lowe HJ, Butte AJ. Novel Integration of hospital electronic medical records and gene expression measurements to identify genetic markers of maturation. *Pac Symp Biocomput*. 2008;:243-54.
- Chen DP**, Weber SC, Constantinou PS, Ferris TA, Lowe HJ, Butte AJ. Clinical arrays of laboratory measures, or "clinarrays", built from an electronic health record enable disease subtyping by severity. *AMIA Annu Symp Proc*. 2007 Oct 11:115-9.
- Chen D**, Yao J. Improved livewire method for segmentation on low contrast and noisy images. *Proceedings of SPIE* 2007 Mar;6512.
- Yao J, **Chen D**, Lu W, Premkumar A. Uterine fibroid segmentation and volume measurement on MRI. *Proceedings of SPIE* 2006 Mar; 6413.

POSTERS

- Chen DP**, Sikka D, Butte AJ. Elucidating the effects of disease on pediatric development using data from electronic medical records. Stanford Bioscience Admissions Poster Session. Stanford University, Stanford, CA. March 5, 2009
- Chen DP**, Butte AJ. Integration of clinical and gene expression data to create genome-clinome networks. National Library of Medicine Informatics Training Conference. National Library of Medicine, Bethesda, MD. July 7-9, 2008.
- Chen DP**, Butte AJ. Integration of hospital electronic medical records and gene expression measurements to find aging related biomarkers and associated genes. NSF Biomedical Informatics Workshop. Menucha, OR. December 3-5, 2007.
- Chen DP**, Butte AJ. Using clinical laboratory data and gene expression measurements to infer gene function. National Library of Medicine Informatics Training Conference. Stanford University, Stanford, CA. June 26-27, 2007.
- Chen DP**, Yao J. The measurement and segmentation of uterine fibroid using magnetic resonance imaging. National Institutes of Health Summer Poster Session. National Institutes of Health, Bethesda, MD. August 2005.

TEACHING EXPERIENCE

Stanford Institutes of Medicine Summer Research Program Mentor.

June 2008 - August 2008

Student was named an Intel Talent Search Semifinalist for 2009.

Teaching Assistant, Representations and Algorithms in Computational Molecular biology (BIOMEDIN 214), Stanford University

April 2008 - June 2008

Teaching Assistant, Translational Biomedical Informatics (BIOMEDIN 217), Stanford University

January 2008 - March 2008

RELATED EXPERIENCE

National Institutes of Health - Department of Diagnostic Radiology, Bethesda, MD

Post baccalaureate IRTA Fellow

August 2005 - August 2006

Developed a hybrid method of image segmentation by combining level sets and livewire to generate more accurate boundaries for noisy, inhomogeneous, and gapped boundaries.

National Institutes of Health - Department of Diagnostic Radiology, Bethesda, MD

Summer Intern

May 2005 - August 2005

Developed semi-automatic segmentation method used by radiology technicians for the purpose of acquiring volumetric information of uterine leiomyomas. Developed software to concurrently register and visualize positions in axial, coronal, and sagittal MRI scans.

Rhodes Publications, Los Angeles, CA

Web Programmer

February 2003 - December 2004

Developed e-commerce based employment and retail sites. Managed internal computer systems: networking, database administration, and systems administration.

RELEVANT KNOWLEDGE AND SKILLS

Clinical data analysis, electronic health records, parametric statistics, non-parametric statistics, randomization, bootstrap, machine learning, gene expression analysis, functional analysis, microarray analysis, clustering, genetics, genomics, biomedical informatics, ontologies, development, aging

ICD 9 CM, SNOMED, LOINC, MeSH, UMLS, GEO, GO

C, C++, Java, Perl, Python, Ruby, JSP, PHP, Ruby on Rails, HTML, Flex, MySQL, Oracle 10i, R, LINUX, Windows

MEMBERSHIPS

American Medical Informatics Association

American Association for the Advancement of Science