

## **D. Jobseeker, Ph.D.**

Post-Doctoral Fellow

University of Pennsylvania, Department of Radiology  
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### **CURRENT RESEARCH POSITION**

#### **Post-Doctoral Fellow**

#### **University of Pennsylvania, Radiology Department, Philadelphia**

Working on the RSNA funded project “Computer-Assisted Risk Estimation (CARE) from Breast Tomosynthesis Images”, focusing on texture analysis of breast tomosynthesis images for the purpose of cancer risk estimation.  
(PI: D. Jobseeker, Mentors: A.D.A Maidment, Predrag R. Bakic, Emily F. Conant, Andrea B. Troxel)

### **EDUCATION**

#### **Ph.D. in Computer and Information Sciences (2006)**

Computer and Information Sciences Department, Temple University , Philadelphia (G.P.A. 3.88/4.00)  
Dissertation Title: “Pattern Analysis for Regions of Interest in Spatial Data with Applications to Medical Images”  
Advisor: Dr. Vasileios Megalooikonomou

#### **M.Sc. in Computer and Information Sciences (2003)**

Computer and Information Sciences Department, Temple University , Philadelphia (G.P.A. 3.78/4.00)  
M.S. Project Title: “Information Retrieval and Analysis in Spatial Databases”  
Advisor: Dr. Vasileios Megalooikonomou

#### **B.Eng. in Computer Engineering and Informatics (2000)**

Computer Engineering and Informatics Department (CEID)  
Engineering School, University of Patras, Greece (G.P.A. 7.89/10)  
Diploma Thesis Title: “Analysis and modeling of Marketing operations in an Enterprise Data Warehouse”  
Advisor: Dr. Georgios Pavlidis

#### **Additional training:**

2007 - 2008 Clinical Research Certificate, Biostatistics and Epidemiology Dept, University of Pennsylvania.

### **HONORS and AWARDS**

- Susan G. Komen for the Cure Foundation Postdoctoral Fellowship, 2008-2010  
Title: Tomosynthesis Texture Biomarkers for Computer-Assisted Risk Estimation (CARE) of Breast Cancer
- Radiological Society of North America (RSNA) Research Fellow Grant, 2007-2008  
Title: Computer-Assisted Risk Estimation (CARE) from Breast Tomosynthesis Images
- Radiological Society of North America (RSNA) Research Fellowship in Basic Radiologic Sciences, 2006-2007  
Title: Analysis of Parenchymal Patterns of Breast Tomosynthesis Images
- 2<sup>nd</sup> Best Poster Award  
University of Pennsylvania 5<sup>th</sup> Annual Biomedical Postdoc Research Symposium, October 2006
- Award for Outstanding Research by a Graduate Student  
College of Science and Technology, Temple University, May 2005
- Graduate Conference Travel Award, College of Science and Technology, Temple University, February 2006
- Student Travel Award (Travel Fellow)  
The 11<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping (OHBM 2005), June 2005
- Student Travel Award, Science Foundation of Ireland (SFI) Registration Grant  
The 18<sup>th</sup> IEEE International Symposium on Computer-Based Medical Systems (CBMS 2005), June 2005
- Student Travel Award  
The SIAM 2004 Data Mining Conference, April 2004
- Highest Distinction Scholarship for Best Achievement in Nationwide Admittance Exams  
Computer Engineering and Informatics Department, University of Patras, Greece, September 1995

## ADDITIONAL RESEARCH and PROFESSIONAL EXPERIENCE

- 2003 – 2006* **Research Assistant**  
**Temple University, Computer and Information Sciences Department, Philadelphia**  
Worked on the NSF funded project “Extracting Patterns from Medical Image Databases”  
(PI: Dr. V. Megalooikonomou).
- 2003*  
*(Summer)* **Research Assistant**  
**Temple University, Computer and Information Sciences Department, Philadelphia**  
Worked on the internal co-funded project with Temple Medical School “Simultaneous assessment of gastric accommodation and emptying” developing software for gastric volume calculation from 3D medical images.  
(PI: Dr. H. Parkman, Co-PI: Dr. V. Megalooikonomou).
- 2001 – 2004* **Research Assistant**  
**Temple University, Computer and Information Sciences Department, Philadelphia**  
Worked on the NSF funded project “Mining Human Brain Data: Analysis, Classification, and Visualization of Probabilistic 3D Objects”.  
(PI: Dr. F. Makedon, Co-PIs: Dr. V. Megalooikonomou, Dr. A. Saykin).
- 2000 – 2001* **Industry Engineer**  
**Marathon Data Systems, Athens, Greece (ESRI Inc., California USA Distributor)**  
Worked as a Geographic Information Systems (GIS) Computer Engineer providing training, application development and technical support for clients both in industry and public administration institutions (government, army, academic institutions, etc.).
- 1999 – 2000* **Student Intern**  
**Oracle Corp., Athens, Greece**  
Studied the design and development of a database application for a news distribution agency under the framework of engineering diploma thesis with title “Analysis and modeling of Marketing operations in an Enterprise Data Warehouse”.

## TEACHING EXPERIENCE

- 2006* **Building Information Technology Skills (bITS) among North Philadelphia Youth.** Participated in the "bITS Conversation" summer program by conducting a visitation session with high-school students, offering insight and motivation to research through the experience of a graduate student.
- 2004-2006* **Undergraduate student advising.** Worked closely with undergraduate students involved with the research projects at the Data Engineering Lab (DnLab) in the Computer and Information Sciences Department at Temple University providing research related guidance. Advisees: Joseph Danglemaier (B.S. CIS), Ailar Javadi (B.E.E) and Dan Mulhern (B.S. CIS).
- 2005-2006* **Recitation Lectures.** Occasionally taught recitation lectures for “Mathematical Concepts in Computing II (CIS 166)” and “Principles of Data Management (graduate course, CIS 616)” at the Computer and Information Sciences Department, Temple University.
- 2000-2001* **Software Training Instructor.** Marathon Data Systems (MDS), Athens, Greece. Designed and taught software training and programming courses: “Programming with MapObjects”, “Working with ArcIMS, the Internet Map Server”, “Programming in Java for ArcIMS”, “Customization with Visual Basic for ArcInfo and ArcView”.

## RESEARCH INTERESTS

Current Research: Digital Breast Tomosynthesis, Parenchymal Pattern Analysis, Breast Cancer Risk Estimation

General Interests: Spatial Data Analysis, Pattern Recognition, Image Processing, Medical Image Analysis

## RESEARCH PUBLICATIONS

### Journal Papers

- V. Megalooikonomou, D. Jobseker, D. Pokrajac, A. Lazarevic, Z. Obradovic, "An adaptive partitioning approach for mining discriminant regions in 3D image data," *Journal of Intelligent Information Systems*, (in press)
- D. Jobseker, V. Megalooikonomou, M.J. Sobel, "A Statistical Approach for Selecting Discriminative Features of Spatial Regions of Interest", *Intelligent Data Analysis*, Vol. 11, No 2, pp.111-135, 2007.
- V. Megalooikonomou, D. Jobseker, "A model for distributed analysis of medical image data across clinical information repositories," *IEEE Engineering in Medicine and Biology Magazine*, pp. 36-42, Sept-Oct 2007.
- D. Jobseker, Q. Wang, V. Megalooikonomou, A. H. Maurer, L. C. Knight, S. Kantor, R. S. Fisher, H. P. Simonian, H. P. Parkman, "A Tool for Handling Uncertainty in Segmenting Regions of Interest in Medical Images", *International Journal of Intelligent Systems Technologies (IJISTA)*, Special Issue on "Intelligent Image and Video Processing and Applications: The Role of Uncertainty", Vol. 1, Nos. 3/4, pp. 194-210, 2006.
- D. Jobseker and V. Megalooikonomou, "Fast and Effective Characterization for Classification and Similarity Searches of 2D and 3D Spatial Region Data", *Pattern Recognition*, Vol. 38 (11), pp. 1831-1846, Nov. 2005.
- D. Pokrajac, V. Megalooikonomou, A. Lazarevic, D. Jobseker, Z. Obradovic, "Applying Spatial Distribution Analysis Techniques to Classification of 3D Medical Images", *Artificial Intelligence in Medicine*, Vol. 33, No. 3, pp. 261-280, Mar. 2005.
- H. P. Simonian, A. H. Maurer, L. C. Knight, S. Kantor, D. Jobseker, V. Megalooikonomou, R. S. Fisher, H.P. Parkman, "Simultaneous Assessment of Gastric Accommodation and Emptying: Studies with Liquid and Solid Meals", *Journal of Nuclear Medicine*, 45: 1155-1160, July 2004.

### Conference Proceedings (full-length papers)

- Jobseker, D., Zhang, C., Ruiters, N. V., Bakic, P. R., and Maidment, A. D. A., "Evaluating the Effect of Tomosynthesis Acquisition Parameters on Image Texture: A Study Based on an Anthropomorphic Breast Tissue Software Model", In: E. Krupinski (ed.), *International Workshop on Digital Mammography (IWDM)*, Springer Lectures Notes in Computer Science, Tucson, AZ, 2008.
- Bakic, P. R., Jobseker, D., and Maidment, A. D. A., "Comparison of Breast Percent Density Estimated from Digital Mammograms and Central Reconstructed Tomosynthesis Slice Images", In: E. Krupinski (ed.), *International Workshop on Digital Mammography (IWDM)*, Springer Lectures Notes in Computer Science, Tucson, AZ, 2008.
- Jobseker, D., Bakic, P. R., Troxel, A. B., Conant, E. F., and Maidment, A. D. A., "Digital Breast Tomosynthesis Parenchymal Texture Analysis for Breast Cancer Risk Estimation: A Preliminary Study", In: E. Krupinski (ed.), *International Workshop on Digital Mammography (IWDM)*, Springer Lectures Notes in Computer Science, Tucson, AZ, 2008.
- Barnathan, M., Zhang, Z., Jobseker, D., Bakic, P. R., Maidment, A. D. A., and Megalooikonomou, V., "Analyzing Tree-Like Structures in Biomedical Images Based on Texture and Branching: An Application to Breast Imaging", In: E. Krupinski (ed.), *International Workshop on Digital Mammography (IWDM)*, Springer Lectures Notes in Computer Science, Tucson, AZ, 2008.
- Jobseker, D., Bakic, P. R., and Maidment, A. D. A. "Texture in Digital Breast Tomosynthesis: A Comparison between Mammographic and Tomographic Characterization of Parenchymal Properties", in *Proc. of SPIE Medical Imaging*, (Vol. 6915) eds: M. L. Giger, N. Karssemeijer, San Diego, CA, 2008.
- Bakic, P. R., Jobseker, D., Carton, A. K., and Maidment, A. D. A. "Breast Percent Density Estimation from 3D Reconstructed Digital Breast Tomosynthesis Images", in *Proc. of SPIE Medical Imaging*, (Vol. 6913) eds: J. Hsieh, E. Samei, San Diego, CA, 2008.
- D. Jobseker, P.R. Bakic, A.D.A Maidment, "Analysis of Parenchymal Texture Properties in Breast Tomosynthesis Images," proceedings of *SPIE Medical Imaging 2007 (6514)*, *Computer-Aided Diagnosis*, edited by M. L. Giger, N. Karssemeijer, 2007.
- P.R. Bakic, D. Jobseker, A.D.A Maidment, "Analysis of Percent Density Estimates from Digital Breast Tomosynthesis Projection Images," proceedings of *SPIE Medical Imaging 2007 (6514)*, *Computer-Aided Diagnosis*, edited by M. L. Giger, N. Karssemeijer, 2007.

- V. Megalooikonomou, J. Zhang,, D. Jobseker, P.R. Bakic, “Analysis of Texture Patterns in Medical Images with an Application to Breast Imaging,” proceedings of SPIE Medical Imaging 2007 (6514), Computer-Aided Diagnosis, edited by M. L. Giger, N. Karssemeijer, 2007.
- P.R. Bakic, D. Jobseker, V. Megalooikonomou, M.A. Rosen, A.D.A Maidment, "Comparison of Methods for Classification of Breast Ductal Branching Patterns", in proceedings of IWDM 2006, the 8th International Workshop on Digital Mammography, Lecture Notes in Computer Science (4046), edited by S.M. Astley et al., pp. 634–641, Springer-Verlag, Berlin, Germany, 2006.
- D. Jobseker, V. Megalooikonomou, A. Javadi, P.R. Bakic, A.D. Maidment, “Classification of Galactograms Using Fractal Properties of the Breast Ductal Network”, In Proc. of the 3<sup>rd</sup> IEEE International Symposium on Biomedical Imaging (ISBI 2006), April 6-9 2006, Arlington, Virginia.
- V. Megalooikonomou, D. Jobseker, J. Danglemaier, A. Javadi, P.R. Bakic, A.D. Maidment, “A representation and classification scheme for tree-like structures in medical images: An application on branching pattern analysis of ductal trees in x-ray galactograms”, In Image Processing: Proc. SPIE 6144, edited by E.L. Siegel, E. Krupinski, M. Sonka, pp. 488-496, 2006.
- V. Megalooikonomou, D. Jobseker, N. DeClaris, P.Cano, “Incorporating Domain Knowledge in Developing Robust Neural Network Models for Peptide-Allele Binding Prediction”, IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology CIBCB 2005, San Diego, CA, November 14-15, pp. 364-371, 2005.
- Q. Wang, V. Megalooikonomou, D. Jobseker, “A Medical Image Retrieval Framework”, IEEE International Workshop on Machine Learning for Signal Processing (MLSP 2005), Special Session on Biomedical Imaging and Data Fusion, Mystic, CT, September 28-30, pp. 233-238, 2005.
- V. Megalooikonomou and D. Jobseker, “Integrating Clinical Information Repositories: A Framework for Distributed Analysis of Medical Image Data”, 5<sup>th</sup> International Network Conference (INC 2005), Special Session on Image Signal and Distributed Data Processing for Networked eHealth Applications, Samos Island, Greece, July 5-7, pp. 545-552 2005.
- D. Jobseker, V. Megalooikonomou and J. Gee, “Reducing the computational cost for statistical medical image analysis: An MRI study on the sexual morphological differentiation of the corpus callosum”, in Proceedings of the 18<sup>th</sup> IEEE International Symposium on Computer-Based Medical Systems (CBMS 2005), Trinity College Dublin, Ireland, pp. 282-287, Jun. 2005.
- D. Jobseker, Q. Wang, V. Megalooikonomou, A. H. Maurer, L. C. Knight, S. Kantor, R. S. Fisher, H. P. Simonian, H. P. Parkman, “A 3D Image Analysis Tool for SPECT Imaging”, in Proceedings of SPIE Medical Imaging 2005, Vol. 5744, pp.839-847, San Diego, CA, Feb. 2005.
- D. Jobseker, V. Megalooikonomou, D. Pokrajac, A. Lazarevic, Z. Obradovic, J. Ford, F. Makedon, A.J. Saykin, “Extraction of Discriminative Functional MRI Activation Patterns and an Application to Alzheimer's Disease”, in Proc. of the 7<sup>th</sup> International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), Lecture notes in Computer Science (LNCS), Springer (3217), pp.727-735, 2004.
- D. Jobseker, V. Megalooikonomou, M. Sobel, Q. Wang, “An MCMC Feature Selection Technique for Characterizing and Classifying Spatial Region Data”, in Proceedings of the Joint International Workshops on Syntactic and Structural Pattern Recognition (SSPR) and Statistical Pattern Recognition (SPR), in Lecture notes in Computer Science (LNCS), Springer-Verlag, Vol. 3138, pp.379-387, Lisbon, Portugal, Aug. 2004.
- Q. Wang, D. Jobseker, G. Li and V. Megalooikonomou, “Application of time series techniques to data mining and analysis of spatial patterns in 3D images” in Proceedings of the 2004 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2004), Montreal, Canada, pp.525-528, May 2004.
- D. Jobseker and V. Megalooikonomou, “Computationally Intelligent Methods for Mining 3D Medical Images”, in Proceedings of SETN 2004 the 3<sup>rd</sup> Hellenic Conference on Artificial Intelligence, in Lecture Notes in Artificial Intelligence (LNAI), Springer-Verlag, Vol. 3025, pp.72-81, Greece, May 2004.
- D. Jobseker and V. Megalooikonomou, “Fast and effective characterization of 3D Region of Interest in medical image data”, in Proc. of SPIE Medical Imaging 2004, San Diego, CA, Vol. 5370, pp. 1324-1331, Feb. 2004.
- D. Jobseker, V. Megalooikonomou, N. Ghubade, C. Faloutsos, “Detecting discriminative functional MRI activation patterns using space filling curves”, in Proceedings of the 25<sup>th</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Cancun, Mexico, pp. 963-967, Sep. 2003.

- V. Megalooikonomou, H. Dutta, D. Jobseeker, “Fast and Effective Characterization of 3D Region Data”, in Proceedings of the IEEE International Conference on Image Processing (ICIP) 2002, Rochester, NY, pp. 421-424, Sep. 2002.

### Conference Abstracts

- Jobseeker, D., Bakic, P. R., and Maidment, A. D. A., “Breast Tissue Classification in Digital Breast Tomosynthesis Images using Texture Features”, The American Association of Physicists in Medicine (AAPM) 50<sup>th</sup> Annual Meeting”, Houston, TX, 2008 (accepted to appear).
- D. Jobseeker, P.R. Bakic, A.D.A Maidment, “Towards Developing Quantitative Imaging Methods for Breast Cancer Risk Assessment: A Comparison between Mammographic and Tomographic Characterization of Parenchymal Texture,” University of Pennsylvania 6<sup>th</sup> Annual Biomedical Postdoc Research Symposium, October 24<sup>th</sup> 2007.
- D. Jobseeker, P.R. Bakic, A.D.A Maidment, “Parenchymal Texture Analysis in Digital Breast Tomosynthesis: Towards Developing Biomarkers for Breast Cancer Risk”, 32<sup>nd</sup> Annual Eugene P. Pendergrass Symposium, Department of Radiology, University of Pennsylvania, June 22<sup>nd</sup> 2007.
- D. Jobseeker, Q. Wang, E. Miranda, J. Zhang, V. Megalooikonomou “Data Mining Techniques Applied on Human Brain Image Data”, Society for Neuroscience Annual Satellite Meeting, Oct 14-18, Atlanta, GA, 2006
- D. Jobseeker, P.R. Bakic, A.D.A Maidment, “Analysis of parenchymal texture properties in breast tomosynthesis images,” University of Pennsylvania 5<sup>th</sup> Annual Biomedical Postdoc Research Symposium, October 11<sup>th</sup> 2006.
- Q. Wang, V. Megalooikonomou, D. Jobseeker, E. Miranda, V. Calhoun, "Similarity Searches in Brain Image Databases", Human Brain Mapping Conference (HBM'06), Florence, Italy, June 11-15, 2006.
- Despina Jobseeker, Qiang Wang, Erickson Miranda, Jingjing Zhang, Vasileios Megalooikonomou, Zoran Obradovic, Michael Barnathan, Li An, and Rui Li. Data Mining Techniques Applied on Human Brain Image Data, 16th Annual Meeting of the Society for Neuroscience, Oct. 16, 2006.
- V. Megalooikonomou, D. Jobseeker and A. Saykin, “Characterizing 3D Regions of Interest in fMRI Activation Maps”, presented at the Human Brain Mapping Conference (HBM'05), Toronto, Canada, June 12-16, 2005.
- D. Jobseeker, V. Megalooikonomou and J. Gee, “Effective Reduction of Statistical Tests for Morphological Analysis: Application to a Study of the Corpus Callosum”, presented at the Human Brain Mapping Conference (HBM'05), Toronto, Canada, June 12-16, 2005.
- V. Megalooikonomou, Q. Wang, D. Jobseeker, G. Li, J. Ford, A. Saykin, “Analysis of Brain Image Data using Sequence Analysis Techniques”, presented at the Human Brain Mapping Conference (HBM'04), Budapest, Hungary, June 13-17, 2004.
- D. Jobseeker, V. Megalooikonomou, Q. Wang, J. Ford, F. Makedon, A. Saykin, “Identifying Discriminative fMRI Activation Signatures in Alzheimer's Disease: Studying a Series of Semantic Decision Tasks”, presented at the Human Brain Mapping Conference (HBM'04), Budapest, Hungary, June 13-17, 2004.
- V. Megalooikonomou, D. Jobseeker, Q. Wang, Z. Obradovic, A. Saykin, O.B. Boyko, “Detecting Patterns in Brain Images”, presented at the The Human Brain Project conference, A Decade of Neuroscience Informatics: Looking Ahead, NIH, Bethesda, Maryland, April 26-27, 2004.
- V. Megalooikonomou, D. Jobseeker, D. Pokrajac, A. Lazarevic, Z. Obradovic, O. Boyko, A. Saykin, J. Ford, F. Makedon, "Classification and Mining of Brain Image Data Using Adaptive Recursive Partitioning Methods: Application to Alzheimer Disease and Brain Activation Patterns", presented at the Human Brain Mapping Conference (HBM'03), New York, NY, June 18-22, 2003.

### Other Publications

- D. Jobseker, “Pattern Analysis for Regions of Interest in Spatial Data with Applications to Medical Images”, Doctoral Dissertation, Temple University, June 2006.
- D. Jobseker, A. Linas, “Analysis and modeling of Marketing operations in an Enterprise Data Warehouse”, Diploma Thesis, Computer Engineering and Informatics Department, University of Patras, Greece, Jun. 2000.

### **Publications in Review**

- Jobseker, D., Bakic, P. R., Troxel, A. B., Conant, E. F., and Maidment, A. D. A., “Parenchymal Texture Analysis in Digital Breast Tomosynthesis for Computer-Assisted Risk Estimation (CARE) of Breast Cancer: A Preliminary Evaluation”, Radiological Society of North America (RSNA) Annual Meeting, Chicago IL, 2008 (submitted).
- Jobseker, D., Bakic, P. R., Troxel, A. B., Conant, E. F., and Maidment, A. D. A., “Parenchymal Pattern Analysis in Breast Tomosynthesis: Towards Developing Imaging Biomarkers of Breast Cancer Risk”. Academic Radiology, 2008 (in revision/review).
- Megalooikonomou, V., Barnathan, M., Jobseker, D., Bakic, P. R., and Maidment, A., “A Representation and Classification Scheme for Tree-like Structures in Medical Images: Analyzing the Branching Pattern of Ductal Trees in X-ray Galactograms”, IEEE Transactions on Medical Imaging, 2008 (in revision/review).

### **OTHER TALKS and PRESENTATIONS**

- “Towards developing quantitative imaging methods for Breast Cancer Risk assessment”, Medical Image Processing Group (MIPG), Department of Radiology, University of Pennsylvania, December 2007.
- “Parenchymal Texture Analysis in Digital Breast Tomosynthesis: Towards Developing Biomarkers for Breast Cancer Risk”, 32<sup>nd</sup> Annual Eugene P. Pendergrass Symposium, Department of Radiology, University of Pennsylvania, June 2007.
- “Analysis of Parenchymal Texture Properties in Breast Tomosynthesis Images”, Section for Biomedical Image Analysis (SBIA), University of Pennsylvania, March 2007 (invited talk).
- “Texture in Breast Tomosynthesis”, Penn Image Computing and Science Laboratory Seminar, University of Pennsylvania, October 2006 (invited talk).
- “An Insight to Research from the Experience of a Graduate Student”, Computer and Information Sciences Department, Delaware State University, December 2005 (invited talk).
- “Novel Techniques for Mining Medical Image Databases”, lecture for the CIS 356 Database Design Course, Mathematics and Computer Science Department, University of Indianapolis, Athens Campus, May 2004 (invited).
- “Customizing ArcGIS with Visual Basic”, presented in 10<sup>th</sup> annual Hellenic conference of ESRI ArcInfo / ArcView Users, Athens, Greece, Nov. 2000 (technical workshop presentation).
- “ArcIMS Internet Map Server”, presented in 10<sup>th</sup> annual Hellenic conference of ESRI ArcInfo / ArcView Users, Athens, Greece, Nov. 2000 (technical workshop presentation).

### **GRANTS**

#### **Current Support**

- Susan G. Komen for the Cure Foundation Postdoctoral Fellowship  
Title Tomosynthesis Texture Biomarkers for Computer-Assisted Risk Estimation (CARE) of Breast Cancer  
Postdoctoral Fellow: Despina Jobseker  
Scientific Mentors: Andrew D.A. Maidment, Emily F. Conant  
Start/End Dates: July 2008- June 2010  
Amount: \$120,000
- Radiological Society of North America (RSNA) Research Fellow Grant (RF0707)  
Title: Computer-Assisted Risk Estimation (CARE) from Breast Tomosynthesis Images  
Principal Investigator: Despina Jobseker  
Scientific Mentors: Andrew D.A. Maidment, Predrag R. Bakic, Emily F. Conant, Andrea B. Troxel  
Start/End Dates: July 2007- June 2008  
Amount: \$50,000

#### **Completed Support**

- Radiological Society of North America (RSNA) Research Fellowship in Basic Radiologic Sciences (FBR0601)

Title: Analysis of Parenchymal Patterns of Breast Tomosynthesis Images  
Principal Investigator: Despina Jobseeker  
Scientific Mentors: Andrew D.A. Maidment, Predrag R. Bakic  
Start/End Dates: July 2006- June 2007  
Amount: \$50,000

### **Pending Support**

- NIH/NCI R21 PA-07-022 (1R21CA137523-01)  
Title: Tomosynthesis Computer-Assisted Risk Estimation (CARE) of Breast Cancer  
PI: Despina Jobseeker  
Start/End Dates: 12/01/2008- 11/30/2010  
Total Estimated Project Funding: \$ 433,125.00  
Reviews Expected: June-July 2008

### **SERVICE**

#### **Academic Service**

- Associate Editor:  
Medical Physics, 2008-present
- Reviewer:  
Medical Physics, 2007-present  
Physics in Medicine and Biology, 2005-present  
Statistical Analysis and Data Mining, 2007-present  
Journal of Electronic Imaging, 2006- present  
International Journal of Intelligent Systems Technologies (IJISTA), 2005
- Committees:  
University of Pennsylvania Biomedical Postdoctoral Council (BPC) Diversity Committee, 2008- present  
Advisory Board, Computer and Information Sciences Department, Temple University, 2006 – present  
Dean's Search Committee, College of Science and Technology, Temple University, 2004 –2006  
Scientific Advisory Board, 12<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping (HBM) 2006  
Special Session Organizer, 3<sup>rd</sup> IFIP Conference on Artificial Intelligence Applications and Innovations (AIAI 2006)  
Program Committee Member and Reviewer: FUZZ-IEEE 2005 Conference

#### **Community Service**

- Member of the Board of Directors and Chair of the Research Ethics Committee  
AIDS Services in Asian Communities (ASIAC), Non-Profit Organization, Philadelphia PA, 2005-present.
- Science and Technology Volunteer (Sciunteer)  
'Science Projects Are Right for Kids' (SPARK!) program, funded by the National Science Foundation (NSF) to enrich science education for elementary school students in the Philadelphia area, 2006-present.

### **PROFESSIONAL AFFILIATIONS**

Member of the Radiological Society of North America (RSNA)  
Member of the Institute of Electrical and Electronics Engineers (IEEE)  
-IEEE Computer Society  
-IEEE Women in Engineering  
Member of the Technical Chamber of Greece (TCG), Licensed Computer Engineer

### **TECHNICAL SKILLS**

Programming Languages: C/C++, Visual Basic, Java, HTML, SQL/PL-SQL, Pascal  
Software Packages: MATLAB, Statistical analysis with S-Plus 6.1  
ESRI GIS software (ArcGis 9, ArcIMS 3.1, MapObjects)  
Oracle RDBMS 8i, Oracle Developer 2000, Oracle Discoverer 3.1  
Photoshop, Corel Graphics Suite  
Web design with MS FrontPage and Apache web servers  
MS Office (Word, Excel, Access etc.)

Windows 2000, XP, Linux, Unix  
Image J, eFilm Medical, Pure Edge

**LANGUAGES**

English (fluent), German (basic), French (basic), Greek (fluent)

**RECOMMENDATION LETTERS**

Available upon request.

**OTHER**

Eligible to work and live in the United States and the European Union: **USA citizen** and **Greek (EU) citizen**

*Last updated 05/2008*