

## Current

Currently pursuing a Doctor of Philosophy in Information Studies at the Drexel University College of Information Science and Technology with Professor Chaomei Chen as adviser. Employed as a Research Assistant supported by the Department of Homeland Security through the North-East Visualization and Analytics Center. My primary research activity is the development of Visual Analytics in support of decision science.

## Education

- 2007–Current **PhD in Information Studies**, *Drexel University*, Philadelphia, PA.
- 2002–2005 **Master of Science in Information Systems**, *Drexel University*, Philadelphia, PA.
- 1996–2001 **Bachelor of Science in Information Systems**, *Drexel University*, Philadelphia, PA.  
Minor: Computer Science

## Awards

- Apr. 23, 2009 **Dean's Award**, *Drexel University College of Information Science and Technology*.  
College award for poster "Overcoming Groupthink in Distributed Heterogeneous Data Analysis" presented at Drexel University Research Day 2009.
- Oct. 19, 2008 **Grand Challenge Award: Data Integration**.  
IEEE VAST 2008 Challenge, part of the IEEE Symposium on Visual Analytics Science and Technology. The 2008 Challenge consisted of 73 entries from 28 different organizations in 13 different countries.
- Jul. 14, 2008 **Scholarship to attend the 2008 National Visualization and Analytics Center, Visual Analytics Educational Workshop**, *Pacific Northwest National Laboratory*.
- Apr. 22, 2008 **Graduate Award for Computation Modeling & Simulation (other than Biological)**.  
University award for poster presented at Drexel University Research Day 2008.
- Apr. 22, 2008 **Dean's Award**, *Drexel University College of Information Science and Technology*.  
College award for poster presented at Drexel University Research Day 2008.
- Mar. 19, 2008 **1st Place Student Poster Award, 2008 U.S. Department of Homeland Security University Network Summit**.  
Awarded for poster titled "Automated Hypothesis Generation and Evaluation by Network Structure Content Analysis and Visualization." Award presented by Admiral Jay M. Cohen, Department of Homeland Security, Under Secretary for Science and Technology.
- Aug. 15, 2006 **Project Accomplishment Award**, *DuPont Performance Coatings*.  
Awarded for contributing to the successful launch of the Improved Business Information Project consolidating multiple European business systems onto a single platform.
- May 25, 2006 **Process Improvement Accomplishment Award**, *DuPont Performance Coatings*.  
Awarded for the implementation of improvements to the Generic Material Safety Data Sheet (MSDS) process, which significantly reduced the man-hours consumed for this compliance process by more than 80%.

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## Publications

Chaomei Chen, Yue Chen, Mark Horowitz, Hanyan Hou, Zeyuan Liu, and Donald Pellegrino. Towards an explanatory and computational theory of scientific discovery. *Journal of Informetrics*, To appear, 2009.

Chi-Chun Pan, Donald Pellegrino, Chris Weaver, and Prasenjit Mitra. Vast 2008 wiki editors mini challenge - identifying social networks using wiki.viz. In *IEEE VAST '08*, page DVD, Columbus, OH, October 19-24 2008.

Donald Pellegrino, Chaomei Chen, Alan MacEachren, Prasenjit Mitra, Chi-Chun Pan, Anthony Robinson, Michael Stryker, and Chris Weaver. North-east visualization and analytics center (nevac) team entry. In *VAST Challenge Portal*. National Institute of Standards and Technology, 2008.

Donald Pellegrino, Chi-Chun Pan, Anthony Robinson, Michael Stryker, Junyan Luo, Chris Weaver, Prasenjit Mitra, Chaomei Chen, Ian Turton, and Alan MacEachren. Grand challenge award: Data integration - visualization and collaboration in the vast 2008 challenge. In *Visual Analytics Science and Technology, 2008. VAST'08. IEEE Symposium on*, pages 197-198, Columbus, OH, October 19-24 2008. IEEE.

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## Presentations and Activities

Mar. 16-19, 2009 **Panelist**, *The Third Annual DHS University Network Summit*, Washington, DC.  
Invited panelist presenting my experiences as a DHS sponsored student during Student Day of the DHS Summit.

Oct. 19-24, 2008 **Panelist**, *IEEE VisWeek 2008*, Columbus, OH.  
Invited panelist presenting on the North-East Visualization and Analytics Center's participation in the IEEE Visual Analytics Science and Technology Challenge 2008.

Oct. 10-11, 2008 **Presented on Visual Analytics**, *Preparedness in the Region: Confronting Vulnerability in the Delaware Valley*, Philadelphia, PA.  
Presented demonstrations of Visual Analytics systems at a regional conference on emergency preparedness in the Delaware Valley. The conference was sponsored by the Drexel Engineering Cities Initiative and the City of Philadelphia Managing Director's Office of Emergency Management.

Jul. 14-25, 2008 **Visual Analytics Educational Workshop Participant**, *Pacific Northwest National Laboratory*, Richland, WA.

May 20-22, 2008 **National Visualization and Analytics Center Spring 2008 Consortium Meeting**, *Johns Hopkins Applied Physics Laboratory*, Laurel, MD.  
Presented research activities to academic, government and commercial interests at the NVAC Consortium Meeting.

Mar. 18-20, 2008 **Poster Presenter**, *The Second Annual DHS University Network Summit*, Washington, DC.

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## Professional Experience

2001–2007 **Senior Systems Analyst**, *DuPont Performance Coatings*, Philadelphia, PA.

After completion of my undergraduate degree I was hired as a full-time employee of DuPont. In this role I transitioned from my earlier co-op responsibilities for site-wide IT at the Marshall Laboratory, to responsibilities for IT projects across the entire DuPont Performance Coatings business unit globally. During my time in this position I worked on maintaining existing projects, such as the “DPC Solvent Modeling System,” the “DPC Technical Information for Products System” and the “DPC Color System.” In addition to support and maintenance work on these established projects I was given responsibility for the architecture and development of the “DPC Global Regulatory System” (GRS). During my time in this role I utilized both the Omnis Classic and Omnis Studio 4GL products for the development of GUIs on Microsoft Windows. The GRS project provided the opportunity to apply advanced C++, XML, SQL and Solaris programming tools to meet high performance and reliability goals for the system. Parallel programming techniques were applied to meet the performance requirements. Expert systems techniques were applied to allow the system to handle complex international chemical regulations and laws. Document generation and reporting techniques were applied to handle multiple languages and layout styles in support of the multiple business and brands served by the system. In addition to designing the system, I led the development and supervised the work of multiple co-op programmers, external contractors and full-time employees. I managed the allocation of these resources and the new requirements provided by DPC Regulatory Affairs and business departments. As many of the programming resources and business were globally dispersed I had the opportunity to develop skills managing a distributed work-force. I also learned to balance conflicting requirements from various business and regions and to institutionalize processes and procedures for ensuring continuity during changing business conditions.

1999–2001 **Contract Programmer**, *Pegasus Communications Corporation*, Bala Cynwyd, PA.

Pegasus Communications undertook a significant R&D project with the vision of creating a new technology for the distribution and presentation of media utilizing both satellite and Internet distribution channels. I reported directly to the Director of Product Development as the Technical Lead. I was responsible for creating the architecture and leading the software development team. I staffed the team, managed the project and wrote the core software framework. The work is currently patent-pending and provided features not available in the market until years later in the form of RSS feeds and Podcasting. During this project I applied C++, QuickTime, GTK+, Linux and PostgreSQL technologies on both Microsoft Windows desktop and RedHat Linux server platforms to implement the product. I also ensured the development environment met Capability Maturity Model (CMM) guidelines through source control with CVS, issue tracking, and requirements management.

Fall 1997–Spring 2000 **Programmer**, *DuPont Performance Coatings*, Philadelphia, PA.

The Drexel BSIS program required five years of study. The program also required students to complete three six-month cooperative education jobs. I fulfilled this requirement by working for DuPont full-time for one and a half years as a programmer. In this role I was responsible for the development and maintenance of custom computer software to support activities at the DuPont Marshall Laboratory (MRL) site. This included maintaining and adding features to the “MRL Personnel System,” the “MRL Equipment Calibration System,” the “MRL Shop Order System,” and the “MRL Datastorm System.” After successful work on these systems I was given responsibility for the design and creation of the “MRL Purchasing System.” The user interfaces for these systems were developed in Omnis, a 4GL RAD tool for GUI development. The backend was implemented using a Sybase database server on a Windows machine. In my role I was able to develop skills in analysis, design, programming, testing and administration of custom software.

1999 **Contract Programmer**, *Princeton Separations, Inc.*, Adelphia, NJ.

While working as an independent contractor for Princeton Separations I had the opportunity to develop custom software for the control of a new measurement device product under development at the company. I worked closely with the President and Vice President of the company to develop the user interface requirements and the Lead Engineer to develop the technical specifications. The software was implemented in Microsoft Visual Basic and utilized the National Instruments Data Acquisition API (NI-DAQ). The delivered software controlled the device, read values from multiple photo-detectors and stored the information. It also presented the device controls and output data in a user-friendly manner and at a quality level high enough to support commercialization of the hardware and software as a single product. I also worked with a representative from the New Jersey State government to ensure that the contract was properly written and managed. This experience allowed me to gain valuable skills in both contract administration and research oriented software development.

Summer, 1997 **Information Processing**, *Prism Consulting Services*, Valley Forge, PA.  
As a summer job between the beginning of my undergraduate degree and the beginning of my co-op employment I worked for Prism Consulting and was responsible for processing incoming candidate resumes. This involved using optical character recognition programs to convert the images of the resumes and then loading the content into a database to facilitate searching. I was also responsible for writing a report generation routine using Microsoft Word to extract data from the original resumes and reformat it to the Prism branded layout for submission to potential employers.

Summer, 1996 **Database Manager**, *Hoogovens Technical Services*, Pittsburgh, PA.  
While working for a temporary administrative services agency in Pittsburgh, PA, I was initially hired to perform data entry tasks. I was quickly contracted full-time by my first client, Hoogovens, and reassigned to develop and manage Microsoft Access database systems for the purposes of tracking technical drawings of steel mills.

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## Language and Nationality

- English - native language.
- United States Citizen

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## Memberships

- American Association for the Advancement of Science (AAAS)
- American Society for Information Science and Technology (ASIST)
- Association for Computing Machinery (ACM)
- IEEE Computer Society

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## Service

May 13–14, 2008 **Special Awards Judge for the Department of Homeland Security**, *2008 Intel International Science and Engineering Fair*, Atlanta, GA.