# **Greg Ferrara**



GIS Program Manager Visual, Analytics, Modeling and Simulation Group Institute for Transportation Research and Education North Carolina State University Centennial Campus, Box 8601 Raleigh, NC 27695-8601 919/515-8656 Fax 919/515-8898 Email: apferrar@ncsu.edu

## **EDUCATION**

M.A., Geography, University of South Florida 1997

B.A., Visual Communications, University of South Florida 1990

#### **EXPERIENCE**

April 2007 - Present

GIS Program Manager Institute for Transportation Research and Education North Carolina State University Raleigh, North Carolina

 Responsible for developing and managing the GIS program for ITRE's Visual Analytics, Modeling and Simulation group.

November 2006 - April 2007

# GIS Program Manager Bechtel-Jacobs Company

Oak Ridge, TN

- Plan, develop and administrate GIS program. Responsible for geospatial program development for the OREIS (Oak Ridge Environmental Information System), the environmental restoration database for the Oak Ridge Reservation.
   Coordinate GIS activities with OREIS client base. Develop geospatial data delivery standards.
- Provide technical support services and oversight for all phases of geospatial processing and production. These include geodatabase development, management of geospatial holdings, geoprocessing, model building and scripting, map production, data acquisition, QA/QC, data integration, image rectification.

October 2002 - May 2006

# GIS Technical Coordinator

Manatee County Government Bradenton, Florida

 Developed Enterprise GIS. Researched, proposed and implemented an Enterprise GIS using ArcSDE, Oracle, and ArcIMS. Coordinated the development, administration and maintenance of the County's internet map server system and Ferrara, Greg 2

- centralized multi-user geodatabase. Created a series of programs to vertically distribute GIS data and services county-wide.
- Standardized Map Service Deployment. Initiated, designed and supervised ArcIMS "look and feel" standardization by developing customized templates. Reduced code redundancy using dhtml, javascript, and css.
- Streamlined 911 Map Rollout Process. Reduced ESRI to Intergraph map rollout production from 6 weeks to 1 week using techniques garnered from user community.
- Standardized Map Templates. Developed and implemented map production standards. Created ArcMap templates, color schemes, text, scales, disclaimers, data development accuracy and precision standards.
- Established County-Wide GIS User Group. Created "MAGNET" (Manatee County Geographic Network). Held semi-monthly meetings, conducted field trips, solicited guest speakers, conducted outreach to neighboring counties and hosted GIS Day.
- Established In-house Training Program. Developed curriculum and conducted training seminars for ArcView and ArcExplorer clients.
- Developed Digital Street Atlas CD. Produced PDF CDs of ArcMap map-books for Fire Departments, EMS, Sheriff's Office and Utilities Department. Documented production process and coordinated production with 911 map rollout.
- Created GIS Division Identity. Created GIS logo and established web presence for GIS division. Ported GIS layers, static maps, and map services to public.
- Standardized CD Deliverables. Developed CD deliverable template for consistent "look and feel".
- Migrated Workstation Hardware. Increased GIS staff productivity by replacing UNIX SunBlades with Windows PCs. Proposed and presented solution to management. SunBlades were repurposed to ArcIMS server farm.
- Initiated GIS Code Integration. Shared code with neighboring systems development team (Java, OAS, XSL).
- Authored Python Scripts. Used scheduled tasks for automated execution.
- Performed Advanced GIS Analysis. Created ArcGIS geoprocessing models, presentation quality maps, and 3D visualization products.
- Developed Hurricane Emergency Response Plan. As hurricanes become more frequent, a GIS-specific emergency plan was essential for critical systems continuance.

June 2001 - October 2002

#### GIS Web Developer

U.S.G.S. Center for Coastal and Watershed Studies St. Petersburg, Florida

 Map Server Development. Developed and administered a customized ArcIMS solution for the South Florida Information Access (SOFIA) project. Customized thin client viewers using DHTML, JavaScript, CSS, and ArcXML. Geoprocessed Ferrara, Greg 3

supporting GIS layers for loading into ArcSDE/Oracle database. Developed web graphics.

June 2000 - June 2001

#### **GIS Analyst**

Florida Marine Research Institute Florida Fish and Wildlife Conservation Commission St. Petersburg, Florida

- GIS Data Steward. Acquired, organized and maintained numerous GIS layers for the Florida Keys Carrying Capacity Study, a multi-agency project to determine the ecological limits of the Florida Keys. Represented FMRI at numerous workshops, conferences and meetings.
- Initiated GIS Sharing Agreement. Brokered joint cooperation between FMRI's core GIS team and USF Marine Science Remote Sensing Department for integration of shared digital imagery and personnel resources.
- Developed Customized Interface. Increased AVHRR image processing efficiency by developing an Erdas Macro Language (EML) script.
- Maintained Processing Scripts. Troubleshot and monitored daily AVHRR C-Shell processing and posting scripts.

January 1997 – January 1999

#### **GIS/Remote Sensing Analyst**

U.S.G.S. Center for Coastal and Watershed Studies St. Petersburg, Florida

- Managed Technical Support Work Flow. Acquired historic mylars, out-sourced scanning, researched registration methodologies, geo-rectified historic maps to satellite imagery, and mapped results. Archived spatial databases, generated FGDC metadata, batch processed imagery.
- Integrated Vector/Raster Datasets. Acquired and integrated vector data with Landsat TM and AVHRR imagery. Constructed and mosaicked DEMs. Assisted in development of highprecision multiple image registration methods.
- Conducted high-precision GPS field surveys.

March 1994 – January 1997

#### GIS Analyst

Florida Center for Community Design and Research Tampa, Florida

 Developed, Processed, Analyzed and Mapped GIS Data. Translated and merged TIGER files with census databases for community redevelopment, urban design and growth management research projects. Conducted extensive relational database manipulation. Designed and produced derived maps for research publications. Presented research results at public meetings. Conducted field surveys. CoFerrara, Greg 4

authored research documents. Administered student task scheduling.

May 1995 - January 1997

#### **GIS Analyst**

Center for Urban Transportation Research Tampa, Florida

 Administered Start-to-Finish GIS Analysis and Mapping. Performed GIS analysis and generated thematic maps for a wide variety of transportation planning projects. Geocoded, edited and joined GIS databases. Analyzed GIS data using a variety of techniques including buffering, dynamic segmentation, and aggregate sampling. Mapped the results for publication.

#### **CERTIFICATIONS/MEMBERSHIPS**

GISP GITA URISA

#### RECENT PRESENTATIONS

October 2005

GIS Expo

West Palm Beach, Florida

"Crime Analysis Techniques Using ArcGIS 9.x"

October 2004

GIS Expo

West Palm Beach, Florida

"Streamlining Building Permitting Workflow Using Web-Based GIS"

## **COMPUTER SKILLS**

ArcGIS, ArcSDE, ArcIMS

Erdas Imagine PCI, SPANS, ENVI

MapInfo

Oracle, Access, Excel

Adobe CS

Python, AXL, XSL, DHTML, JavaScript, C-Shell, Korn Shell, AML, EML

UNIX, Windows, Mac