STEWART CAMERON BRUCE
151 DIXON DRIVE, SUITE 3
CHESTERTOWN, MD 21620
443-282-0012
SBRUCE2@WASHCOLL.EDU

PROFESSIONAL PROFILE

Over 17 years of GIS management and supervisory experience across a broad spectrum of GIS and IT applications always keeping customer satisfaction as a top priority. Broad educational, municipal and state government project management experience in GIS projects including developing and managing large scale web mapping projects on time and within budget. Strong grant/proposal writing track record in finding external funding sources to support organizational goals and objectives.

EMPLOYMENT EXPERIENCE

Washington College, Chestertown, MD Assistant Director, Center for Environment and Society, GIS Program Coordinator, Adjunct Assistant Professor of Anthropology	2007 - present
Pennsylvania State, College Park, PA Senior Extension Associate, Penn State Cooperative Extension Geospatial Technology Program	2001 - 2007
Mifflin County Government, Lewistown, PA. Director of GIS and Information Technology	1996 - 2001
Centre County Planning Department, Bellefonte, PA.	1995 - 1996
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation, Johnston, PA.	1995
National Geographic Society, Washington, D.C.	1994

EDUCATION

M.S., Geography, Pennsylvania State University, University Park, PA. 1997
B.A., Geography, California State University, Long Beach, CA. 1994

PROFESSIONAL ORGANIZATIONS

- Member of the Academic Advisory Board of the United States Geospatial Intelligence Foundation
- Technical expert member of the Map@Syst Community of Practice.

DESCRIPTIVE EMPLOYMENT HISTORY

Washington College
GIS Program Coordinator,
Center for Environment and Society
Chestertown, Maryland

- Manage numerous GIS projects with state agencies and local municipal organizations including:
    - Maryland Crime Mapping and Analysis Program.
    - Maryland Offender Management System (ArcGIS Server 10 and Silverlight).
    - Analysis of FQHC clinics in Maryland.
    - Developed Moodle-based GIS curriculum for adult criminal justice professionals and school districts.
    - Red Lion Municipal Authority sewer and water mapping.
    - Easton storm water mapping.
    - 3D visualization of St Michaels and Chestertown, Maryland.
    - Chestertown historical geography.
    - GIS on the Chester environmental study.
    - Kent County Urban Greening Initiative.
    - Since 2007 have raised over $3,600,000 in competitive grants and contracts.
- Teach one GIS course per semester, remote sensing, and Freshman Writing.
- Supervise 65 student interns and 12 professional staff on various GIS projects.
- Work with faculty and staff on research and infrastructure projects
- GIS Program was awarded the United States Geospatial Intelligence Foundation Academic Achievement Award for 2012.
- Approved as a Technical Assistance Provider by the National Fish and Wildlife Foundation in 2013.
- Frequent blogger on the Office of Justice Programs Diagnostic Center blog.

Pennsylvania State University
Senior Extension Associate, Penn State Cooperative
Extension Geospatial Technology Program
University Park, Pennsylvania

- Provided GIS outreach and extension services to local organizations.
- Conducted community training in the applications of ArcView GIS software including teaching how to geocode crime events.
- Co-principal investigator on over five specific research projects totaling over $370,000 of external funding.
- Created custom training materials for geospatial technology training.
- Completed GIS needs assessments for local governments as requested.
- Organized three GIS for Local Government conferences.
- Project leader for Chesapeake Bay Program land use/land cover project.
- Worked on on-lot septic system research study on reasons for failing systems.

Mifflin County Mapping/MIS Department
Director of Information Technology
Lewistown, PA.

- Established Geographic Information System (GIS) for 9-1-1, Planning, and Assessment using digital orthophoto base map.

- Created regional GIS partnership with sixteen other municipal organizations including eight townships, four boroughs, three municipal authorities, a regional police department, and the local conservation district as well as private business partners.
- Brought in $1,700,000 of outside grant funding to Mifflin County.
- Received the 1999 Governor's Award for Local Government Excellence in Innovative Government.
- Developed road management system for local road infrastructure.
- Created crime-mapping program as part of statewide Justice NET.
- Established a Metadata management system and node on the NSDI.
- Setup GPS program to map municipal sewer and water systems.
- Started a FEMA funded effort to correctly map floodplains.
- Oversaw creation of an ArcIMS web-mapping site.
- Supervised technical staff of sixteen professional personnel.

Centre County Planning Department,
Bellefonte, PA.

- Land use planning.
- Fieldwork verifying land use status, aerial photo interpretation, produced land use maps.

Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Johnston, PA.

- Historic research, fieldwork to identify historic structures, interviewed local citizens, report preparation for nomination to the National Historic Register.

National Geographic Society,
Washington, D.C.

- Geographic research for page maps in National Geographic Magazine, prepared draft maps.

AWARDED GRANTS AND CONTRACTS

Governor's Office of Crime Control and Prevention

Project involves studying the regionalization of Crime Mapping on the Upper Eastern Shore of Maryland with a grant award of $96,000 in 2007.
Crime Mapping and Analysis Program with a grant award of $189,900 in 2008.
Crime Mapping and Analysis Program with a renewal grant of $216,000 in 2009
Crime Mapping and Analysis Program with a renewal grant of $225,850 in 2010
Maryland Offender Management System with a grant award of $264,267 in 2011
Crime Mapping and Analysis Program renewal grant for $320,357 in 2011
Crime Mapping and Analysis Program renewal grant for $379,852 in 2012
Crime Mapping and Analysis Program grant modification for Intelligence Linkage Analysis for $81,862 in 2012.
Crime Mapping and Analysis Program renewal grant for $461,412 in 2013
Crime Prevention through Environmental Design, $78,000 in 2013

Maryland Highway Safety Office

Impaired Driving Risk Terrain Analysis for $188,331 in 2012.

Maryland Higher Education Commission

Geospatial technology training for the current and future BRAC workforce with a grant award of $95,000 in 2009.
Geospatial technology training for the current and future BRAC workforce with a grant award of $165,000 in 2008.

Maryland State Department of Education

The Elementary STEM Certified Teacher – Race to the Top, $80,000 in 2010

City of Baltimore

ArcGIS Training Contract to deliver Moodle based curriculum, $11,600 in 2012

Town of Easton, Maryland

Historic Easton, $19,600 in 2011
Tanyard Branch Watershed Assessment, $35,000 in 2012
Easton Stormwater, $20,000 in 2012
Easton Stormwater, $20,000 in 2013

Easton Utilities

GPS Field Mapping Project, $18,000 in 2013

City of Cambridge, Maryland

Tree Canopy Analysis and Impervious Surface Analysis for $35,000 in 2012.

Friends of the Jacobus VandeerVeer House

Pluckemin Artillery Cantonment 3d visualization, Phase 1, $4,000 in 2011
Pluckemin Artillery Cantonment 3d visualization, Phase 2, $50,000 in 2012

Chesapeake Bay Maritime Museum

War of 1812 GIS Displays, $9,995 in 2013

Tuscarora Intermediate Unit 11

GetIT curriculum development, $100,000 in 2009
GetIT Curriculum Development, $67,000 in 2011

FCC Rural Health Care Pilot Program

Project will fund telecommunication infrastructure for four hospitals, several rural health care clinics, and dozens of school based health care clinics in Mifflin, Juniata, Huntingdon, and Fulton Counties in Pennsylvania with a grant award of $3,300,000 in 2007.

USDA – Distance Learning and Telemedicine

Lewistown Hospital, Electronic Medical Records, $500,000 in 2004
Lewistown Hospital, Home Health Care Electronic Monitoring, $400,000 in 2005
Lewistown Hospital, Teleradiology and Telecardiology Picture Archiving and Communication System (PACS), $500,000 in 2006
Lewistown Hospital, EHR for Family Health Associates, $108,000 grant in 2007
Lewistown Hospital, Mobile EKG, $50,750 in 2008
Tuscarora Intermediate Unit and Washington College, Geospatial Education Technology Initiative, $500,000 in 2008.
Mount Nittany Medical Center, two grants for $300,000 in 2009.
Lewistown Hospital Teleradiology, $128,000 in 2011.

Pennsylvania Department of Health

Lewistown Hospital, Primary Care Community Challenge Grant, $150,000 to establish a mobile free health care clinic in Mifflin/Juniata County, 2006

Environmental Systems Research Institute (ESRI)

Local Government Start-up Grant Program worth nearly $100,000 in GIS software, data and training in 1999

County Commissioners Association of Pennsylvania (CCAP)

Social Net (SNET) grant for $567,000 to create an Internet based system to share client data amongst over 20 human service organizations in Mifflin and Juniata County, 2000.

Pennsylvania Department of Community and Economic Development (DCED)

Shared Municipal Services grant, $10,000 in Fiscal in 1997
Shared Municipal Services grant, $20,000 in Fiscal in 1998
Shared Municipal Services grant, $37,500 in Fiscal in 1999
Land Use Planning and Technical Assistance Program for $177,000 in 2001
Community Revitalization Program, $20,000 for a digital x-ray system for the Mifflin-Juniata Free Dental Clinic, 2004
Community Revitalization Program, $8,000 for upgrades to Lewistown Hospital web site, 2006
Community Revitalization Program, $10,000 for inpatient diabetes program at MNMC

Pennsylvania Commission on Crime and Delinquency

JNET and Crime Mapping, $165,000 in 1999

Pennsylvania Department of Environmental Protection (DEP)

Kish Creek Watershed Grant, $26,000 for GIS development in 1998/1999

Pennsylvania Department of Transportation (Penn DOT)

Municipal Services, $8,000 in 1997/1998
Liquid Fuels Road/Bridge/Culvert Management System (now known as Transportation Network or TNET) for $100,000 for 1999-2001

Pennsylvania Department of Agriculture (PDA)

Land Preservation Grant for $10,000 in 1999
Land Preservation Grant for $10,000 in 2000

Pennsylvania Technology Infrastructure Authority (PTIA)

Mifflin County Municipal Area Network grant for $257,000 to lay fiber optics and place wireless connections in 2000.

United States Geologic Survey (USGS)

Don't "Duck" Metadata grant, $6,100 in 2000

Federal Geographic Data Committee (FGDC)

Web Mapping linked to NSDI node – Open Use Server (OPUS) for $20,000 in 2001

Federal Emergency Management Agency (FEMA)

Cooperating Technical Community (CTC) grant to correct Mifflin County floodplains for $37,830 in 2001/2002

Verizon

Lumina Center, Community Technical Center, $15,000 in 1999

Center for Rural Pennsylvania

Research project to study reasons for failing on lot septic systems, $50,000 in 2006

Swanstrom Foundation

Research project in Central Idaho to map resources on the Foundations ranch, $10,000 in 2009 and $5,000 in 2012.

PROFESSIONAL HONORS

1999 Governor's Award for Local Government Excellence in the category of innovative community/government initiatives

2001 FEMA Region III Outstanding Community Award

2012 Academic Achievement Award from the United States Geospatial Intelligence Foundation

PUBLICATIONS

An Examination of Failing Private Septic Systems in Pennsylvania. Center for Rural Pennsylvania. Rick Day, Yuanhong Zhu, Stewart Bruce, and Amy Franklin, Pennsylvania State University, 2008

Class, Space, and Ethnicity in a Railroad Town: The Making of Renovo, Pennsylvania. Master's Thesis, Pennsylvania State University, 1997.

A research project to analyze the spatial distribution of various demographic and land use variables over a historic period. Extensive database developed from manuscript census along with historic land use maps thematically displayed using the GIS software Arcview.

The Historical Geography of San Clemente Island, 1542-1937.
Honor's Thesis, California State University, Long Beach, CA. 1994.

Research report prepared as part of a U.S. Navy funded project to determine the significance of historic sites. Atlas GIS was used to compile thematic data.

GIS NEEDS ASSESSMENT REPORTS

Clearfield County Board of Commissioners, Pennsylvania, 2001
Blair County Board of Commissioners, Pennsylvania, 2002
Carbon County Board of Commissioners, Pennsylvania, 2002
Potter County Board of Commissioners, Pennsylvania, 2002
Westmoreland County Board of Commissioners, Pennsylvania, 2002
Wyoming County Board of Commissioners, Pennsylvania, 2002
Fulton County Board of Commissioners, Pennsylvania, 2003
Laguna Pueblo Tribal Government, New Mexico, 2003
Southwest Pennsylvania Commission, Pennsylvania, 2003
Northwest Commission, Pennsylvania, 2003
Bucks County Board of Commissioners, Pennsylvania, 2004
York County Board of Commissioners, Pennsylvania, 2005
Crawford County Board of Commissioners, Pennsylvania, 2006
City of Oil City, Pennsylvania, 2006
Borough of Grove City, Pennsylvania, 2006
Kent County, Maryland, 2008

TECHNICAL TRAINING MANUALS

WCGetIT Moodle based training site (http://wcgetit.org)
Introduction to ArcGIS 9.2 for high schools
Intermediate ArcGIS 9.2 for high schools
Introduction to ArcGIS 9.2 for Crime Analysts
Introduction to ArcView, versions 3.3, 8.0, 8.3, 9.0, 9.1, and 9.2
Intermediate ArcView, versions 3.3, 8.0, 8.3, 9.0, 9.1, and 9.2
ENVI Remote Sensing, co-authored a five day workshop training manual
Customized training manuals for the Pennsylvania FFA Farm Mapping Program

PRESENTATIONS

A Linear Risk Terrain Analysis to Reduce Impaired Driving in Maryland, NIJ Research Track, International Association of Crime Analysts, 2013

Mapping the Way for Maryland Students, Maryland Library Association Conference, 2013

Using GIS Software in the Classroom, Common Ground Teacher Conference, 2013

Enhancing STEM Education with Geospatial Technology, Common Ground Teacher Conference, 2013

Trends in 3d Visualization and Virtual World Development for K-12, Common Ground Teacher Conference, 2013

Using Moodle to Teach Geospatial Technology in K-12, Common Ground Teacher Conference, 2013

Trends in 3D Community Visualization and Virtual Worlds with Google Sketch-Up, 3DS Max, and Unity, Technology and Engineering Education Association of Pennsylvania (TEEAP) 60th annual conference, 2012

Utilizing an Online Moodle Environment to Teach Geospatial Technologies and Support STEM Education, Technology and Engineering Education Association of Pennsylvania (TEEAP) 60th annual conference, 2012

The Future of 3d and Virtual Worlds, USGIF GeoInt Symposium, 2012.

Trends in 3D Visualization and Virtual Worlds, Pennsylvania GIS Conference, 2012

Addressing Inner City Violence, Guns, and Gangs, MD Compstat on Demand, National Criminal Justice Association Northeast Regional Workshop, 2010

Building Content Learning Environments, ESRI Educational Conference, 2010

ArcGIS Server to Map Maryland Parole and Probation Data, ESRI International User Conference, 2010

Share Your Data: Maryland Parole And Probation Offender Mapping With ArcGIS Server, American Probation and Parole Association 35th Annual Training Institute, 2010

Parole and Probation Web Mapping Application, Towson GIS Conference, 2009.

Crime Mapping and Analysis Program, Maryland Crime Analysis Summit, 2008

GIS for Campus Public Safety, Chestertown, MD 2008

New Approaches for Learning ArcView 9.2, Pennsylvania State GIS Conference, Camp Hill, PA 2007.

Georeferencing in ArcView Desktop 9.2, Pennsylvania State GIS Conference, Camp Hill, PA 2007.

Personal Geodatabases in ArcView Desktop 9.2, Pennsylvania State GIS Conference, Camp Hill, PA 2007.

Hands-on GIS for Township Officials, Pennsylvania State Association of Township Supervisors, Hershey, PA 2007

Geographic Information Systems for Roadmasters, Mid-Atlantic Roadway Management Conference, Charlottesville, VA 2007

Plenary Introduction: Penn State On-Lot Septic Failure Research Project, Pennsylvania SEO Conference, Grantville, PA 2007

GIS for FFA Farm Mapping, FFA Conference I, Harrisburg, PA 2007

GIS for FFA Farm Mapping, FFA Conference II, Harrisburg, PA 2007

GIS for Municipal Officials, Clarion University GIS Conference, Clarion, PA 2006

Using GIS to Map Retail Store Locations, WISE Conference, State College, PA 2006

Labeling and Annotation in ArcView 9.2, Southwestern Pennsylvania GIS Conference, Pittsburgh, PA 2006

GIS for County Animal Response Teams (CART), Columbia/Montour CART Meeting, Bloomfield, PA 2006

GIS for Tribal Leaders, SIPI Summer Institute, Albuquerque, NM 2006

Grant Writing for Small Water and Sewer Systems, Pennsylvania Rural Water Association Annual Conference, State College, PA 2006

Grant Writing for Geospatial Technology Applications, Pennsylvania State GIS Conference, Harrisburg, PA 2006

Hands-on GIS for Township Officials, Pennsylvania State Association of Township Supervisors, Hershey, PA 2006

Geospatial Technology Applications: Basics, Cooperative Extension In-Service Training Conference, State College, PA 2006

Geospatial Technology Applications: Opportunities with Local Governments and Communities, Cooperative Extension In-Service Training Conference, State College, PA 2006

Labeling and Annotation in ArcView 9, GIS for Local Government Conference, State College, PA, 2005

Digitizing in ArcView 9, GIS for Local Government Conference, State College, PA, 2005

Comparison of Locally Generated Land Use Data with Satellite Derived Land Cover Data, Richmond Area GIS Users Group, Richmond, VA 2005

Grant Writing 101, Central Pennsylvania Dietician Association Conference, 2005

Show me the Money: Grants for GIS, GIS for Local Government Conference, State College, PA, 2004

Municipal GIS on a Budget, Pennsylvania GIS Conference, Hershey, PA, 2002

Funding your Local Government GIS by Creating Regional Partnerships, Pennsylvania GIS Conference, Hershey, PA, 2000.

The Isolation of San Clemente Island from Mainland California. Association of American Geographers Annual Conference, Chicago, IL, 1995

The Distribution of Brosimum alicastrum in Relation to Mayan Archaeological Sites in Yucatan, Mexico. CSULB Student Research Conference, Long Beach, CA, 1994

Utilizing Geographic Information Systems and Remote Sensing as an aid in the Discovery of Lost Mayan sites in the Quintana Roo Province of Mexico. CSU Social Sciences Conference, CA, Best Undergraduate paper, 1993