Professional Curriculum Vitae
Eric Kennedy Swartling

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HTTPS://WWW.LINKEDIN.COM/IN/ERIC-SWARTLING

HTTPS://DEFAULTWEBSITE.NET

HTTPS://NUGET.COM/SWARTHACK

HTTPS://SWARTHACK.VISUALSTUDIO.COM

HTTPS://SWARTLING-FAMILY.COM

HTTPS://HWBOT.ORG/SWARTHACK

EDUCATION

Masters of Science, University of Utah – June 1996

Department of Geography, College of Social and Behavioral Sciences

Graduate Research- "Bilingual GIS: An Industrial Hazards Interface for the US/Mexico Border". Included the development of a bilingual English/Spanish ArcView interface for the display and query of data pertinent to industrial hazards and evacuation planning.

Bachelors of Science, University of Utah – June 1992

Department of Geography, College of Social and Behavioral Sciences

Focusing on: Geographic Information Systems (GIS), Relational Theory, Object Oriented Design, Land-use Planning, Environmental Law and Impact Assessment, Image Analysis, Remote Sensing, Aerial Photo Interpretation, Cartography, Biogeography and Geomorphology.

Bachelors of Art, University of Utah – June 1992

Department of Spanish, College of Social and Behavioral Sciences

Spanish Culture and language, Basque University, San Sebastian, Spain, Jan-Sept 1989

CURRENT TECHNICAL PROFICIENCIES

Full Stack Design, Engineering & Development

• Visual Studio 2015/2017 • C# • ASP.NET Core • ASP.NET 4/MVC 5 • WCF • SOA • REST •
• Entity Framework • Language Integrate Query (LINQ) • OWIN • OAuth •

• HTML5 • Javascript • JQuery • JQuery UI •Ajax • Json • Node.js • NPM • Bootstrap3/4 •
• LESS • SASS • Grunt • MVVM • Knockout • Angular • React • etc.

• Java EE / SE / ME • Oracle JDeveloper • SQL Developer • NetBeans • IntelliJ • IDEA •

• Geographic Information Systems (GIS) • ESRI • ArcGIS Runtime/Mobile SDKs •
• Enterprise(ArcGIS Server) • Enterprise Geodatabases(SDE) •
• Remote Sensing • ERDAS • CAD • Raster/Vector Image Acquisition/Editing •

• Systems Development and Operations • Microsoft Windows Server 2012 R2 •
• UNIX • Linux/Ubuntu/Apache • IIS • MS SQL Server/T-SQL • Oracle/PL-SQL • MySQL •
• Scripting • Automation • CSH• KSH• BASH• Perl • PYTHON •

• Network Design and Wiring • Hardware Installation • Network Protocols • TCP/IP Sockets •
• Microcontroller Programing • Circuit Design/Engineering • Arduino •

CORE MANAGEMENT COMPETENCIES

• IT Process Improvement • Risk Assessment and Mitigation • Operations Architecture •
• Client Relations and Collaboration • Infrastructure Development • Configuration, Change
and Release Management • Source Control and Task Management •
• Visual Studio Team Services • MS Project • SharePoint • Visio • SVN • PVCS • Git •
• Unified Modeling Language (UML) • Event Chain • Agile • Scrum •

• IT Process Improvement • Risk Assessment & Mitigation • Client Relations & Collaboration •
• Development Architecture Operations • Application Lifecycle & Source Control Management •
• Visual Studio Team Services • GitHub • SVN • PVCS • Event Chain • Agile • Scrum •
• MS Project • SharePoint • Visio • UML •

PROFESSIONAL EXPERIENCE

New Amsterdam Ltd.	Salt Lake City, UT	2006 – present

Principal – personal business and contract vehicle.
Hardware/Software research, feasibility, development and testing. Developing creative ideas with salient and emerging technologies. **Currently active in Visual Studio (VS) 2015/2017, C#, ASP.NET Core** and associated development technologies and frameworks. Experienced since the first release of Visual Studio, ASP.NET and beyond. **Multilingual coder.**

➢ **See https://defaultwebsite.net for a portal to articles, resume, CV, code samples and more!ities**
➢ Maintain and manage development operation using VS Team Foundation Services, https://swarthack.visualstudio.com mirrored at GitHub https://github.com/SwartHack.

> ➢ **Bahia de Akumal Inc.** • Board Member   2013-present
> ➢ • RealEstate Investment and Management
> ➢   **HackInc LLC** • Principal
>   2014- present

Centuria Corporation	Arlington, VA - Salt Lake City, UT	2011– 2013

US Government GSA Contractor to USDA Forest Service   www.centuria.com
Mobile Application Developer Team Leader
Provided technical expertise to the design, development, and support of existing field based mobile applications. Interpreted and communicated business area requirements and translated them into final products that met or exceeded specifications. Participated in the definition of new architecture and approach for mobile application development using the latest mobile platforms and technologies. Pursued necessary Business Area management relationships and requirements.

Key Achievements
➢ Returned to Forest Service to manage new mobile development team and life cycle maintenance/support of existing legacy mobile applications I-Web/NRM
➢ Managed effort interpreting outstanding Business Area requirements, team project plans and tasks; resulting in products that enhance existing program areas' operating efficiency.
➢ **Participated in Agency wide R&D effort of architecture and approach to new mobile application platform and development technologies**: Javascript/CSS Frameworks, Bootstrap 1, HTML5, ESRI
➢ Last thing

IMTS LLC	Fredericksburg, VA	2009 – 2011

US Government Defense Contractor www.imtsworld.com

Software Engineer

Specialized in the integration of GIS/GPS technologies and video capture to provide georeferenced video capabilities and analysis. Team leader and contributor in the design, engineering, testing and in-country remote maintenance of the IMTS Passive Hunter systems. Built on next generation technology, these systems capture and analyze field data acquired during operational, surveillance and reconnaissance activities.

➤ Managed feasibility of design within time and cost constraints. Modeled software with the goal of optimizing operational efficiency. Developed and modified software systems using analysis and models to predict and measure outcome and consequences of design. Accomplished in country deployment within 12 months of project inception.

➤ Designed nth-tier Service Oriented Architecture (SOA) utilizing Windows Communication Foundation (WCF) services.

➤ Engineered and implemented proprietary MGRS image tiling /delivery system for service and client based applications.

➤ Researched and developed a proof-of-concept entailing the live integration of Passive Hunter with the National Geospatial Intelligence Agency's (NGA) RaptorX special operations application. Entailing the development of a custom Java plug-in and integration of Dagger GPS.

Skills Summary (2009)

Object Oriented Application Design and Development

Visual Studio .NET Framework/C#, WIN32, Visual Basic and other associated Microsoft development technologies and modeling tools.

Visual Studio .Net Compact Framework/C#, Microsoft Embedded Visual Basic and associated mobile hardware and development platforms: Windows Mobile 2003 and 2nd Edition, Windows Mobile 5/CE, Windows Mobile 6/CE; GPS Integration.; ESRI Mobile ADF.

Database Development, Administration and Programming

RDBMS applied application and theory. Oracle, Informix, Sybase, MS SQL Server and other RDBMS platforms.

Operating Systems Development, Networking and Administration

UNIX: Solaris, IBM AIX, HP/UX; Linux; Microsoft: Windows 2000/2003, XP, Vista, X Window Emulation, Client/Server and associated network protocols.; TCP/IP Sockets programming; network hardware installation and maintenance, physical network design and wiring, computer configuration and maintenance.

Web Server/Client Design and Development

HTML/DHTML, XML, ASP, ASP.NET, VBScript/JavaScript, UIX, JSP/J2EE and other related web development languages; associated Web server installation and administration.

Geographic Information Systems (GIS) Analysis and Application Development

GIS applied application and theory. ESRI GIS Products: Arc, ArcGIS 9.x, ArcObjects, SDE, ArcGIS Server and Engine, Arc/Info, ArcView and other legacy ESRI application development environments.

| **USDA Forest Service** | Washington, D.C. | 2003 – 2008 |

Department of Engineering
Senior GIS Developer / Mobile Team Lead

Nationally recruited as GIS Developer/Mobile Team Lead to join the USDA Forest Service engineering team's continued development of the INFRA and I-Web projects. Delivered strategic direction, leadership and contribution to the expansion of field applications for the inventory and maintenance of all constructed physical assets in the national forests. Participated in the Agency wide development of Geographic Information Systems (GIS) integration. Analyzed business and technology challenges, assessed impacts, and recommended solutions.

Duties primarily focused on the design, engineering, development, implementation and support of GIS and mobile applications. Included specific mobile field based applications as well as the involvement in enhancement of existing mobile data delivery system. Focusing on data delivery from the centralized Forest Service database to handheld Personal Data Recorders (PDR) and other GPS enabled field based devices. Data collected was uploaded and synchronized back to the centralized Forest Service database.

Other responsibilities included handling and transitioning of mobile applications with the changing hardware and operating system specifications; working with Forest service Technology and Development Centers to define standard definitions and guidelines; and managing the changes and developments in ESRI GIS technology specifically related to mobile solutions.

Key Achievements

- ✓ Released a prototype GIS/mobile integration within the first four months on the project.
- ✓ Deployed the first working nationally standardized mobile field software applications in the Forest Service.
- ✓ Developed 5 specific mobile applications for 3 different business areas within the first year on the project.
- ✓ Introduced and implemented .Net Framework/C# object orient programming after the USDA Web integration for more efficient development of required mobile client/server based applications.
- ✓ Developed an object oriented approach to client/server development by creating reusable abstract .NET Framework/C# class libraries utilizing ArGIS ArcObjects, ArcEngine, MapControls and SDE.
- ✓ Developed reusable .NET Framework/C# abstract class libraries and UserControls using ArcGIS, ArcObjects, ArcEngine and SDE.
- ✓ Helped engineer and implement the prototype remote USDA Web Authentication client login process by applying HTML/DHTML/XML and Javascript along with client side .NET Framework/C# web assemblies.

Skills Summary (2003)

UNIX/PC operating systems administration and integration, UNIX: SunOS, Solaris, IBM AIX HP/UX; Linux, Microsoft: Windows 95/98/ME/XP/NT 4.0X/2000, X Window Emulation

Relational Database Management System application, administration and relevant programming: Oracle7x/8I (PL/SQL), Informix Online 7x, Sybase, MS SQL Server 7/2000, etc.

Programming Languages: UNIX C/Sockets, Perl and shell, 12 years; Windows C/C++ (Borland C++), 3 years; ODBC/OLEDB/ADO, 8 years; Java, 3 years; Visual Basic/ WIN32 API 6 years; Visual Studio.Net, 2 years.

Teleperformance USA	Salt Lake City, UT	1999 – 2001

National telephone support and research company

Lead Programmer/Senior Analyst

Researched and developed new technologies for Web based Computer Telephony Integration (CTI). Implemented new CTI technologies and ASP/ASP.NET to replace old Informix ASCII based 4gl interfaces. Develop General Dialer/Switch maintenance and administration: Nobles, Lucent G3. Research and evaluate existing and emerging technologies (ASP.NET) to replace legacy systems. Train programming staff in the nature and development of new technologies and concepts.

Successfully designed, engineered and developed a prototype application that enable nth-tier integration between end-user Web based applications, Windows 2000 middle-ware servers, Linux backend servers and Nobles and Lucent Dialer switches. This prototype laid the ground work to be able to eventually eliminate old legacy ASCII based end-user applications. Utilized IIS, HTML, ASP, VBscript, Javascript, Windows Sockets WIN32 API, VisualBasic, UNIX C Sockets, Embedded SQL, UNIX C and Informix 4GL.

Key Achievements

- ✓ Developed new SQL Server 2000 databases to store and track all dialer/switch activity.
- ✓ Utilized ASP and Sockets integration to replace legacy 4gl interfaces.
- ✓ Managed staff of 5-8 developers and provided mentoring in the transition from 4gl to web based development technologies.
- ✓ Beta developer of ASP.NET.
- ✓ Prototyped ASP.NET transition of ASP applications with integration to Lucent G3 Dialers.

Modis Inc.	Salt Lake City, UT	1998-1999

National recruiting company specializing in IT contract services

Development Practice Lead/Senior Consultant

Managed Salt Lake Regional office development practice and its 15-30 developers. Performed applicant technical interviews and screenings. Marketed, evaluated and bid development projects. Assessed viability and marketability of emerging technologies. Responsible for providing development services on major contracts.

Key Achievements

✓ Visual Basic/C++ developer and SQL Server database analyst for ground up development of computer aided dispatch system for national commercial emergency 911 software manufacturer and distributer. Utilized emerging Windows 2000 development technologies: COM+, MTS, DCOM, MSMQ, and XML.

✓ Designed, engineered and developed a MapObjects linear address based spatial interface into the existing Computer Aided Dispatch e911 system allowing for spatial display of and interaction with unit and incident locations.

Professional Assignments while at Modis

Senior Software Developer/Engineer, MEGG Associates, 6/00 - 10/00
Designed, engineered and developed a linear address based spatial interface into the existing Computer Aided Dispatch system allowing for spatial display of and interaction with unit and incident locations. Also incorporated a non-spatial address verification relational database to augment and integrate with the spatial component. Utilized COM+/MTS/DCOM, MapObjects, Visual Basic 6.0, Windows 2000 and SQL Server 7.0.

Lead Software Developer/Database Administrator, MEGG Associates, 9/99 - 4/00
Served as lead developer and database designer/administrator for the migration/development of a DOS based Computer Aided Dispatch (CAD) to a Windows 2000 based environment. Utilized COM+/MTS, Microsoft Message Queue Services, XML, Visual Basic 6.0, Window 2000 Server and Professional and SQL Server 7.0.

Skills Summary (1998)

Software/Languages
Excel, Powerpoint, Word, MS Exchange, Netscape Communicator, SMTP Sendmail, UNIX C, Perl and Shell, Windows C/C++, Borland C++, ODBC, Visual Basic, Java (Visual Café'), SQL, ODBC, Oracle SQL/Net Visual J++, Symentec Café', Access, ActiveX, CGI, HTML, MS FrontPage, MS Internet Information Server, Netscape Enterprise Server, ARC-AML, ArcCad, ArcStorm, ArcView, ARC/INFO, Avenue, AutoCad, Spacial Database Engin (ESRI) Intergraph-Microstation, MapObjects

Databases/Network Protocols
Informix, MS SQL Server, Oracle, Oracle PL/SQL, Paradox, Sybase SQL Server, Cisco Routers, Ethernet, Firewalls, Frame Relay, MS Windows NT Server, MS WFW/Win 95 Networking, Remote Access Services (RAS), TCP/IP.

Hardware/Operating Systems
AIX, HP/UX, Linux, MS DOS, MS Window 95, MS Windows 3.x, MS Windows NT, UNIX Solaris, Sparc, Sun OS, Apple/Mac, Digital Apha Server, Hewlett Packard, Intergraph, Sillicon Graphics.

Geographic Information System (GIS)
ARC/INFO and AML programming, ArcView, Avenue, Map Objects, Arc 8 beta/8.1, SDE, ESRI business partner

E-Squared LLC – Principle Partner

Geographic IT consultants

Responsible for all technology matters regarding needs for development and integration of Geographic Information Systems and related Information Technologies. Including: database software/hardware needs assessment, database design based on specific business models, security considerations, installation, configuration, maintenance, software development and end-user documentation and training.

Key Achievements
- ✓ Wrote many successful custom GIS applications to address specific client needs.
- ✓ Provided contract software development and support services to local and state government entities.
- ✓ Implemented an object oriented approach prior to .NET utilizing a wide range of WIN32 techniques and technologies including: MapObjects, Sockets, DDE, Message Queues, XML, DCOM, ActiveX/OLE, and ODBC/ADO/OLEDB.
- ✓ Manage and participate in ESRI business partner relationship.
- ✓ Lead PL/SQL developer and Oracle database analyst assisting Parsons Engineering on the nationally all digital hydrographic survey for the State of New Mexico. Installed, config and implemented Online Informix and developed Informix database, integration and automation for one of the **largest digital hydrological surveys in US government his** Database design and integration focused on the allocations of spatial distributions defined spatial application to their corresponding definitions in a relational database. Focused o allocations of spatial distributions defined in a GIS to their corresponding definitions relational database. Included integration of GIS technologies in relation to spatial definitio geographic nature in a relational database

Clients included:
- ➢ Hansen Information Technologies,
- ➢ Salt Lake International Airport, US Soil Conservation Services,
- ➢ Salt Lake City Public Utilities,
- ➢ Utah Travel Council,
- ➢ Utah State Tax Commission
- ➢ Salt Lake City Suburban Sanitary Sewer District #1
- ➢ Parsons Engineering

Hansen Information Technologies

International developer and distributor of utility infrastructure management software

Senior GIS Analyst/Developer

Designed and implemented large scale utility infrastructure GIS applications for distributed user bases across muti-tier management levels. Responsible for systems integration, project management, application development, implementation and maintenance. Directly in charge of agency wide on-site technical support, application delivery, client interaction and training. Researched and developed a UNIX based application that integrated into a pre-existing PC based infrastructure management system application. This included the ground-up engineering, design and programming of the UNIX integration software and underlying data model. The developed application dealt with the management and maintenance of public infrastructure systems. It was generally implemented across the large scale of a non-localized county/municipal facility management organization and addressed a diverse user-base of skill and management levels. Utilized UNIX C, Embedded SQL , UNIX based ODBC, Shell, Perl and proprietary macro languages.

Key Achievements

- ✓ Lead developer of GIS application development team.
- ✓ Ground up design, integration and implementation of enterprise spatial application.
- ✓ Maintained direct relationships with key national and international clients.
- ✓ Research and development of an ARC/INFO based Geographic information System (GIS) application.
- ✓ Network and systems administration, (UNIX: SunOS, Solaris, IBM AIX HP/UX; Microsoft: Windows '95, Windows for Workgroups, Windows NT 4.0, X Window Emulation). Local and wide area network connectivity.
- ✓ Responsible for the installation, maintenance, security, design and development of all local Relational Database Management Systems. This included automatic mirroring/audit of concurrent Oracle and Informix database across Solaris, HP/UX, AIX and Digital UNIX operating systems. Consult production team on design, conversion and maintenance of integrated graphical and relational tabular databases.
- ✓ Provide on-sight client consulting and system installations.

Major Projects:

- ➢ Metropolitan Sewer District (MSD) Jefferson County Kentucky
- ➢ City of Burnaby, Canada
- ➢ City of Aurora, Colorado
- ➢ Melbourne Institute of Technology, Melbourne Australia
- ➢ City and County of Honolulu, Oahu, Hawaii
- ➢ City of Spokane, WA.

University of Utah June 1991 - Feb. 1995

Department of Geography
GIS Analyst
Managed and assisted in the utilization and implementation of ARC/INFO GIS projects. Responsibilities included: geodesy, photogrammetry, geographic and tabular databases design; Standard definition for the conversion and manipulation of pre-existing analog and digital geographic information and relational data; GIS application design and development. Included providing lab teaching assistance in traditional geographic disciplines and their technological applications using GIS.

Managed and assisted in the utilization and implementation of projects. Responsibilities included: geodesy, photogrammetry, geographic and tabular databases design; Standard definition for the conversion and manipulation of pre-existing analog and digital geographic information and relational data; Data application design and development. Included providing lab teaching assistance in traditional geographic disciplines and their technological applications using spatial data.

- ✓ Coordinating and assisting staff employees in the creation of geographic and tabular databases.
- ✓ Managing the conversion and manipulation of digital geographic information.
- ✓ Application programming and Geographic relational data model design
- ✓ Responsible for the administration, upgrade and maintenance of 20+ Solaris Sun Sparc workstations.

Major Projects:

- ➢ Salt Lake City International Airport
- ➢ Soil Conservation Services
- ➢ Utah Travel Council
- ➢ Salt Lake City Public Utilities

WORK HISTORY SUMMARY

-References available upon request-

Centuria Corp, Mobile Application Developer Team Lead, 4/11 – 3/13.

IMTS LLC, Software Engineer, 10/09 – 4/11.

USDA Forest Service, Senior GIS Developer/Mobile Team Lead, 11/03 – 8/08

Teleperformance USA, Lead Research and Development Programmer/Senior Analyst, 6/01 – 6/02.

Modis Inc. (formerly Berger & Co.), Development Practice Lead/Senior Consultant, 9/99 - 5/01.

E² LLC - Geographic IT Consulting, Principal Partner, 6/97 - 12/99.

Hansen Information Technologies, Senior GIS Analyst/Developer, 2/95 - 6/97.

Digitally Integrated Geographic Information Technologies (DIGIT) Lab, Department of Geography, University of Utah, Senior GIS Analyst/Technician, 6/91 - 2/95.