

# Ashley L. Kubatko

914 City Park Ave. ♦ Columbus, OH 43206 ♦ (614) 404-6945 ♦ ashley.maggi@gmail.com

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## Profile

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2014 National Security President's Award Winner. Project manager and principle investigator in developing novel software tools for Battelle to be first to market new and impactful software utilities. Creates innovative polished graphics and storyboards communicating complex ideas in easy to understand ways. Utilizes excellent leadership, teamwork, and communication skills, and demonstrates ability to work and communicate effectively with individuals at all levels of an organization.

## Skills Summary

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|---|--|---------------------------------------|
| ♦ Software Development Life Cycle (SDLC) Management | ♦ User Interface/User Experience (UI/UX) Development | ♦ Business Development & Marketing    |
| ♦ Software Development                              | ♦ Graphic Design Experience                          | ♦ Training & New Staff Development    |
| ♦ Project/Program Management                        | ♦ Storyboard Creation/Wire Framing                   | ♦ Polished Public Speaker & Presenter |
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- ♦ Programming: C#, C++, JavaScript, HTML5, CSS, SQL, VBA, MATLAB, Python
  - ♦ Platforms: Experienced in .NET Framework development for MVC, Windows Azure, Windows Presentation Foundation (WPF)
  - ♦ Software: Microsoft Office Suite, GIS-based software ThinkGeo (WPF & MVC Edition) & ESRI ArcGIS, Adobe Photoshop, Adobe Illustrator and Camtasia

## Professional Highlights

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- ♦ Executing responsibilities as Project Manager and Principal Investigator for Battelle's commercial food safety and defense business which encompass a suite of software capabilities and products
- ♦ Currently (FY15) managing > \$1.8M in contract project work; Overseeing a team of 8+ staff members through project execution and delivery
- ♦ Highly sought after individual across Battelle for clean, innovative and appealing UI/UX designs which provide clients with greater access to the information and capabilities they desire
- ♦ Delivered (in FY15) 14% of new commercial clients to a business line and grew an existing client relationship by > 600%
- ♦ Part of an elite strategy team to develop a new long term structural adaptation and strategy for Battelle's \$800M contract research business; Selected based on demonstrated high performance, intellectual curiosity, commitment and influence inside the organization
- ♦ Participated in the Battelle Innovation Gathering which showcased the skills to perform market research used to define and understand a distinct market segment, and successfully pitch a product to create business opportunities in an emerging market
- ♦ While an undergraduate student, generated over \$1M of revenue for an e-commerce site; Responsible for 25% e-commerce growth annually

## Education

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M.S. CIVIL ENGINEERING, The Ohio State University, Columbus, OH (2011)

Thesis: *Discontinuous Galerkin Finite Element Methods for Shallow Water Flow and Transport Developing a Computational Infrastructure for Mixed Element Meshes*

B.S. CIVIL ENGINEERING, The Ohio State University, Columbus, OH (2010)

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## Professional Experience

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### BATTELLE

#### Principal Research Scientist – CBRNE Defense, Threat Assessment Group (June 11 – Present)

- ♦ Leading a software team in designing and developing an Economically Motivated Adulteration (EMA) Vulnerability Assessment Tool (EMAlert) which aids grocery manufacturers to quantitatively make informed decisions and develop mitigation strategies for EMA; developing a user friendly website interface overlaying complex mathematics allowing for rapid analysis and improved understanding of EMA threats
- ♦ Implementing marketing and business development strategy for EMAlert - the week of the product launch Bloomberg wrote a piece covering the work (<http://www.bloomberg.com/news/articles/2016-04-19/food-fraudsters-targeted-with-software-to-protect-your-cheese>)
- ♦ Executing responsibilities as Project Manager and Principal Investigator for Probabilistic Risk Informed Analysis (PRIA) software capability to aid food industry decision makers in addressing food safety concerns; Leading and managing a team in performing technical efforts to develop complex mathematical models and a streamlined Graphical User Interface (GUI); Involved in developing the value proposition and taking part in commercial market engagement to form an offering for potential clients; within 9 months of inception PRIA realized its first commercial sale to Baiada Poultry (Australia's second largest poultry manufacturer)
- ♦ Leading multiple teams for government programs with web based software offerings including a high profile Department of Defense operational risk program, a Department of Homeland Security Biodefense Content Management System (CMS) and a Department of Homeland Security Biodefense Research Prioritization Measures application
- ♦ Experienced in deploying large scale commercial web applications in addition to government applications at various classification levels (UNCLASSIFIED through TOP SECRET deployment experience)
- ♦ Lead a team of programmers in designing, developing, and testing a Microsoft® Surface tablet-based program that enables efficient recording, summation, and real-time analysis of data from a variety of canine evaluations. The Mobile Application for Canine Evaluation (MACE) program improves the efficiency and flexibility of test and evaluation execution, and enables real-time delivery of results
- ♦ Task Lead for desktop capability development tasks under the Best Estimate / Assessment of Risk (BEAR) program that aids US Air Force staff in analyzing the risks of various courses of action against radiation exposure
- ♦ UI/UX portfolio available upon request
- ♦ Active DoD SECRET Clearance

### THE OHIO STATE UNIVERSITY

#### Graduate Research Associate – Dept. of Civil & Environmental Engineering (July 10 – June 11)

- ♦ Graduate studies funded through a \$1.6M National Science Foundation project, *Collaborative Research: Hurricane Storm Surge Modeling on Petascale Computers*
- ♦ Developing, implementing and testing quadrilateral/hexahedral elements into an existing discontinuous Galerkin finite element code in two and three dimensions to examine the efficiency and accuracy of the calculations against triangular/triangular prism elements as well the results obtained by mixing the element types; These techniques are being applied in the context of the shallow water equations
- ♦ Constructed efficient (in some cases optimal) cubature rules for numerically evaluating volume integrals over triangular prism finite element domains; These rules will contribute exceptional efficiency in the calculation phase of the finite element code, which will in turn provide a significant cost savings when studying large scale domains
- ♦ Presented a technical poster at the International Workshop for Multiscale (Un)-Structured Mesh Numerical Ocean Modeling on the topic of Discontinuous Galerkin Finite Element Methods for the Shallow Water Equations Using Mixed Meshes; Presentation held at the Massachusetts Institute of Technology (MIT), August 2010

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## OHIO DEPARTMENT OF TRANSPORTATION (ODOT)

### Engineer Intern – Office of Innovation, Partnerships, & Energy

(Jan 09 – June 10)

- ♦ Worked on a project team which successfully won a \$1.6M renewable energy grant; The proposed green energy project is to install wind turbines and solar panels to power rest area facilities; The power output will be monitored over a period of time, with a long term goal of implementing these technologies to power all of ODOT's 1200 facilities, therefore greatly reducing Ohio's carbon footprint and the electricity costs associated with these facilities
- ♦ Performed Pavement Condition Rating (PCR) for all federally aided routes in 28 Ohio counties; PCR allows ODOT to develop a threshold for when pavement is in need of major or minor rehabilitation
- ♦ Analyzed PCR data to determine and document the rate of deterioration and distress for different routes and districts which allows pavement design to be analyzed and modified based on performance
- ♦ Partook in research and allocation of federal stimulus funding received by the state

## Other Work Experience

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### CLINTONVILLE OUTFITTERS

#### Assistant Manager

(May 08 – Nov 09)

- ♦ Best performing sales person
- ♦ Actively searched for products that meet the company's eco-friendly standards and increasing customer awareness of the products
- ♦ Created a revised floor plan to improve sales, customer experience, and product displays
- ♦ Executed an inventory control plan to improve accuracy and increasing profit margins
- ♦ Worked 35-40 hours per week while in school

### ASPEN SKI AND BOARD

#### E-Commerce Manager & Hardgoods Buyer

(Nov 03 – April 08)

- ♦ Developed e-commerce website for a brick and mortar retail store
- ♦ Generated over \$1M dollars of revenue
- ♦ Organized an efficient product shipment system
- ♦ Responsible for over 25% growth annually
- ♦ Work 40+ hours per week while in school

## Honors & Awards

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- ♦ National Security President's Award Recipient, Fiscal Year 13 (awarded February 2014)
- ♦ Software Creator Award, Probabilistic Risk Informed Analysis, Fiscal Year 15 (awarded April 2016)
- ♦ Battelle Innovation Gathering (BIG) Competition, Second Place, June 2012
- ♦ 12 Outstanding Performance Awards (August 2012 - Present)
- ♦ 2013 Battelle Women's History Month Honoree
- ♦ Member, Chi Epsilon ( $\chi\epsilon$ ), The National Civil Engineering Honorary
- ♦ Member, National Society of Collegiate Scholars (NSCS)
- ♦ College of Engineering Dean's List, 7 Quarters (greater than 3.5 GPA)

## Affiliations and Professional Memberships

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- ♦ Secretary, American Society of Civil Engineers (ASCE), The Ohio State University Chapter, 2009-2010
- ♦ Member, National Society of Professional Engineers (NSPE), Ohio Society of Professional Engineers Chapter (OSPE)