

# Robert J. Fisher

PRODUCT OWNER · SOFTWARE ENGINEER

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## Education

### University of Pittsburgh

Pittsburgh, Pa USA

B.S. IN COMPUTER SCIENCE

2000 - 2004

- Internship, Software Engineering, Iron Compass Map Co - 2004

## Skills

<b>Programming</b>	JavaScript, C#/VB.Net, Java, Python, C++
<b>Web</b>	Dojo, jQuery, Meteor, Ember, Node + Express
<b>Mobile</b>	Windows Mobile, Windows Phone, iOS, Android, Xamarin
<b>Database</b>	MSSQL Server, Oracle, Postgres/PostGIS, Mongo

## Experience

### SevOne, Inc

Newark, De

PRODUCT OWNER

Aug. 2016 - PRESENT

- **Product Owner:** Responsible for the identification and prioritization of features for brand new product; **SevOne Data Insight**. A real-time insight and analytics platform built with cutting-edge technology. Was instrumental in adoption of the **ReactJS** UI library and **GraphQL** Query Language for maximum flexibility of the reporting framework. Was responsible for the design and prototyping of a **geospatial focused** mapping and topology reporting 'widget' using **Leaflet**, **Open Street Map Data**, and **Keylines**. This 'widget' allowed for network mapping and realtime monitoring of complex data networks with advanced capability for realtime indicator information and alerting covering networks from within a data center to covering the globe. Was also instrumental in designing a self-hosted solution for geospatial data for customers unable or unwilling to use 3rd party hosted mapping data.

### geographIT

Lancaster, Pa

PROJECT MANAGER - LEAD DEVELOPER

Jan. 2012 - Aug. 2016

- **System/Application Architect:** Responsible for working with GIS lead analysts to design the best solution for complicated project/product requirements. Collected complex customer requirements and determined best technologies/architecture to fill customer needs within a fixed budget. Projects often involved integrating many pre-existing systems with multiple data repositories into a single system architecture for numerous users with critical use cases. Successfully created numerous systems within highly critical/sensitive infrastructures that have been maintained with minimal effort for years with high customer satisfaction.
- **Lead Developer:** Responsible for setting internal code standards for a small team of developers. Instituted developer team internal standards for tools and design patterns as well as direction of technological research and development. Moved the team from **subversion** to **git** and **gitflow** workflow to add QA/QC oversight to projects. Instructed development team on using newer technologies such as **node** and **express, meteor, ember, and react**. Trained development team via code reviews to improve code reuse and extensibility by instituting unit testing and improving code via design patterns.
- **Project Manager:** Responsible for managing all aspects of a development project: determining system/project requirements, designing the system/project scope and design, creating technical specification documents and proposals, assigning and managing developers during application lifecycle, managing project budget and schedule. Successfully managed several projects using traditional waterfall and agile project paradigms. Often responsible for managing several projects/products simultaneously. Successfully managed client relationships by maintaining accurate schedules, enforcing high code quality, minimizing bugs, and remaining under-budget. Insured high customer satisfaction by a fine attention to UI/UX with a focus on attention to usability details. Used extensive experience with non-savvy users to create intuitive workflows to aid in project adoption and use.

## geographIT

SENIOR DEVELOPER

Lancaster, Pa

Aug. 2009 - Dec. 2011

- **Incident Management System, City of Philadelphia:** Lead software development for a new ArcGIS for Server web based incident management system and custom executive dashboard that summarizes incident trends and status for the Mayor's Office, city department heads, and utilities. The system will be used to create, track, coordinate response, and close out incidents involving street closings and downed utility lines during major natural or man-made disasters which require activation of the EOC as the City's command and control center. Participated in system requirements gathering meetings, prepared software requirements specifications, designed application architecture, estimated the software development budget, and provided technical guidance to two other software developers. Responsible for the development of a custom configurable JavaScript dashboard that summarizes metrics for incident trends and incident responses directly from the incident database and displays the metrics as a panel of trend graphs and charts.
- **Urban Forestry Asset and Inventory Management System, Washington D.C.:** Responsible for preparing the system requirements specification and developing and implementing a custom urban forestry asset management application to track tree planting and maintenance at the tree farm, inventorying potted trees acquired from suppliers, and tree planting and maintenance activities in the Washington DC metropolitan area. The application architecture includes ArcGIS for Server 10.3 published REST services, Apple iPads and iPhones running Apple iOS 9, and the ArcGIS for Apple iOS SDK 10.3. Tree planting, inventory, and maintenance activities are entered from the field in offline mode and synchronize edits to ArcGIS for Server services using cellular broadband or WiFi hotspots.
- **Journey Management Application, Lancaster, Pa:** Lead developer for a Journey Management solution developed for a large energy company involved in Marcellus Shale natural gas production. This document retrieval web-GIS application enables interactive map and database searches to locate predefined Acrobat pdf map documents of preplanned routes to/from the well site and intersection drawings. The configurable web application enables changing application settings by Rettew system administrators. The application was developed within four weeks from date of contract using an agile approach to application development with weekly demonstrations of progress to the client. The Amazon EC2 cloud hosted application uses ArcGIS Server 10.x map and data services and was developed using Esri's JavaScript API for ArcGIS Server.
- **SWEEP Mobile Ticking System, City of Philadelphia:** Lead developer for Philadelphia Department of Streets, Sanitation Division Streets & Walkways Education and Enforcement Program (SWEEP) mobile ticketing application. This application uses GPS to show the user's location on a map. The application allows writing of SWEEP violations on site, while capturing photographs of violations, capturing officer signatures, and using bluetooth printing to deliver violations to violators. The SWEEP Application uses RFID reader technology to scan RFID tags attached to refuse dumpsters for display of licensing information. It also uses Microsoft's SQL Server synchronization framework for Microsoft's SQL Server compact edition via Microsoft's Internet Information Services (IIS). The application has supporting Microsoft SQL Service Integration Services packages that extract, transform, and load data from an Oracle database containing licensing information and a nightly export process that uploads tickets to the ticket payment collection department and emails tickets to violators.
- **Philadelphia Mobile Pole and LED Asset Tracking Program, City of Philadelphia:** Lead developer for Philadelphia mobile pole and LED asset tracking program to use with the city's conversion to LED street lights. This application uses GPS to show user's location on the map. The application allows addition, editing, and deletion of map features in the field for asset management. The Asset Tracking Program uses a barcode reader to track LED installation and removal efficiently. It uses ESRI's mobile synchronization framework to synchronize changes across devices and publishes edits on a central server.

## AMQ Software

DEVELOPER

Lancaster, Pa

Dec. 2008 - Aug. 2009

- **Opti-Mogul Route Optimization Dispatch Software, Lancaster, Pa:** Lead developer for this project for Opti-Mogul. This mobile application uses external GPS to show a user's location on a map. The mobile application receives the order of deliveries, delivery information, and routing information to delivery, and sends the driver time clock information and delivery payment/status information back using Windows Communication Foundation services with Microsoft Message Queue. The dispatch software extracts, transforms, and exports and updates data from Eagle Business Management Software using nHibernate. This application allows editing of new fuel stations, trucks, truck compartments, and manual stop assignment/ordering while synchronizing any changes to mobile clients.

## Swift Signal

DEVELOPER

Lancaster, Pa

Jun. 2008 - Dec. 2008

- **Windows .Net Desktop Software, Lancaster, Pa:** Lead Developer of Windows .Net desktop software for AMQ Software, including project Epsilon, a fully customizable Point of Sale system generalized enough to handle all retail markets. Designed and developed codename Epsilon from creation to current version. Implemented multi-station/store database environment using nHibernate. Implemented data synchronization and multi-store searching using WCF. Implemented Credit/Debit/Gift/Check processing using Mercury Payment system.

## Iron Compass Maps

Lancaster, Pa

DEVELOPER

Jul. 2004 - Jun. 2008

- **On-Scene Xplorer Application Suite, Lancaster, Pa:** Lead Developer of Iron Compass Map Company's flagship product, On-Scene Xplorer, a mapping and pre-incident planning application for the emergency services industry, as well as designing and implementing tools and applications for internal and external company use. Designed and developed On-Scene Xplorer using ESRI's MapObjects from creation to 2.5 release. Supervised and contributed to porting codebase to C# and .Net Framework 3.5. Designed and implemented a PocketPC application to capture location and attributes of fire hydrants to be imported into On-Scene Xplorer data format. Designed and implemented various tools to improve coworker productivity, including but not limited to: Data verification tool used to guarantee accurate user data before distribution; various custom cartography tools; application for automatically creating Nullsoft Install System installation scripts; downloaded and merged aerial photography; ArcGIS plugin to ease the creating of building footprints from aerial photography.

## Extracurricular Activities




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### Meteor Mondays

Lancaster, Pa

Co FOUNDER

2015 - PRESENT




- Monthly meeting for local developers to collaboratively work on projects involving MeteorJS. Meetings include short lightning talks, presentations by other developers, and hack sessions to allow those interested in meteor to go from novice to expert.
-  [Homepage](#)
-  [Github](#)
-  [Twitter](#)

### Hack Lancaster

Lancaster, Pa

ACTIVE ORGANIZER

2015 - PRESENT



- Current organizer/maintainer of Lancaster Hack Night. A monthly meeting for local designer/developers to work together on projects outside of a work environment. Since becoming the primary organizer the meetings have shifted toward working collectively toward providing free design/technical/programming support for local non-profits.
-  [Homepage](#)
-  [Github](#)
-  [Twitter](#)

### Lancaster Science Factory

Lancaster, Pa

VOLUNTEER

2015 - PRESENT

- **MIY Volunteer:** Make It Yourself (MIY) volunteer helping kids from grades **3-9** learn the basics of computer programming via interactive games. Currently working with the Lancaster Science Factory to extend their curriculum for more advanced programming topics.
-  [Homepage](#)
-  [Online Slides](#)

# Presentations


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## CPOSC 2015

Lancaster, Pa

FULL STACK DEVELOPMENT W/ METEOR

Oct. 2015


- **Writing a real-time comment system in meteor:** A brief presentation explaining the power of meteor followed by a 20min live demonstration of building a full featured commenting system including user management and live comment updates during the talk.
-  [Slides Online](#)

## Tech Lancaster

Lancaster, Pa

ESRI ONLINE: POWERFUL CLOUD BASED GIS

Jun. 2015

- **A brief overview of ESRI Online:** The advantages of using this cloud based GIS system for data management, data editing, and software development. Showed a quick example of how to use ESRI Online to create powerful, fully featured mapping applications for the web. Then using the same data for native applications using the ERSI mobile application APIs.
-  [Slides Online](#)

## Tech Lancaster

Lancaster, Pa

METEORJS: A REACTIVE WEB FRAMEWORK

Dec. 2014

- **A brief overview of meteor:** The advantages of using this real-time JavaScript platform for development and the power of automatic client/server synchronization.
-  [Slide Code Online](#)

## (IMAGIN): Geospatial Workshop series

University of Michigan

PRESENTER FOR MERITS OF MOBILE GIS

Feb. 2012

- **Morning Session Presentation:** An overview of the power and options for mobile GIS solutions. Looked at the pros/cons of a mobile friendly website, native application, and hybrid applications.
- **Afternoon Session Presentation:** An overview of a specific case study. Using the City of Philadelphia's SWEEP Mobile ticketing system to show the power of using mobile technology with GIS systems to provide impressive returns of investment.