

Stephen Eshelman

Senior Software Developer at TA Instruments

Phone: 302.593.0657
Address: 327 John Hancock Blvd.
Lincoln University PA
19352
Website: <http://www.objectthink.com>
Email: stephen.n.eshelman@objectthink.com

To work as part of a team with the talent and vision to do great things; creating api's and frameworks using object oriented technologies to encapsulate company assets that enable and drive development while promoting the reuse of these components to bring products to market faster.

Proficient at defining the right abstractions with the right behaviors; providing frameworks that developers can run with.

Specialties: Object oriented design and implementation in many OO languages and platforms. Particularly C#, C++, and Java, and have applied background in Smalltalk, Objective-C, Swift, Python, and others.

Tools: Visual Studio, Xcode

OS's: Windows, Linux, Mac OS X

Web Stack: node.js, feathersjs, Vus.js, react.js, NATS.io

DB: mongodb, couchbase, SQL

SKILLS AND RECENT ACCOMPLISHMENTS

Enabled analytical instrument communications by designing a client side **C#** framework using **Visual Studio**. Framework embodies an instrument abstraction that allows client developers to easily access an instrument. Work extensively with **Linux** command line to build and troubleshoot instrument communications.

Designed instrument user interface in **Java 1.7** and using **Netbeans IDE 8.02**. Framework allows instrument developers to create instrument specific user interfaces that encapsulate consistent behavior and company branding.

Design and prototype instrument enterprise communications that incorporates a message broker (**NATS.io**) and protocol that allows for instrument and lab equipment discovery, identification, and addressability. Wrote reference class libraries in **C#** that encapsulate design and protocol.

Develop prototype full stack web application to access instrument using enterprise communications comprising of **node.js** libraries on the backend (**NATS.io client, feathersjs services**) and react.js and vuejs on the frontend.

Develop prototype **iPhone** and **tvOS** applications in **objective-c** and **swift**. These applications demonstrated how to interact with instruments using enterprise communications.

Part of an ongoing effort to provide scripting abilities to our flagship application using **google blocky** and python. Interface consists of a **C#** api and generated **python** code to script the application. Responsible for the python code generation in **javascript** and general python coding and investigation.

EXPERIENCE

TA Instruments

Mar 2014 to Present

Senior Software Developer in R&D

- As member of the common platform group, architect responsible for client side communications for next generation thermal instruments developing C# framework to easily and intuitively access instrument state and functionality.
- Design and implement instrument abstraction used across new thermal instrument line.
- Collaborate with firmware team to design an interface and system that makes sense from the perspective of the client side developer.
- Design and prototype iOS assets including tvOS.
- Project lead and architect for touchscreen interface application framework for instrument written in java and running on linux.
- This framework is the basis for the new thermal instrument platform touchscreen application.
- Mentor team members in the use of my api's and frameworks and and work closely with firmware teams to ensure success.
- Design and develop next generation enterprise communications platform and alpha reference implementation.

objectthink.com

Apr 2010 to Present

iOS developer

- iOS development.
- Design and develop iPhone apps (flicksplorer, flickripper, I Guess Person Place Thing) for the app store.
- Source and App store links:
 - <https://itunes.apple.com/us/app/flicksplorer-flickr-explorer/id465294717?mt=8>
 - source: <https://github.com/objectthink/flicksplorer>
 - <https://itunes.apple.com/us/app/flickripper/id388853073?mt=8>
 - source: <https://github.com/objectthink/flickripper>
 - <https://itunes.apple.com/us/app/iguess-person-place-thing/id380864552?mt=8>

Systech International

Jan 2014 to Mar 2014

iPhone Developer

- Contract iOS app e-Fingerprint™ (revolutionary counterfeit-secure serialization solution) maintenance.

XO Energy

Oct 2011 to Jan 2014

Software Engineer

- Maintain software that queries power market data and makes it available to in-house software.
- Develop mobile assets that keep team apprised of up to the minute progress using Apple Push Notification Service (APNS).

- Support in-house software on trading floor.

Sapphire Technologies

May 2011 to Oct 2011

Software Engineer

- Contract position @XO Energy.
- Help move Java assets to C#.

Hologic

Apr 2010 to Apr 2011

Lead Engineer

- Lead engineer, Hologic Affirm™ breast biopsy guidance system, Acquisition Workstation development, released end of 2010.
- Manage design and integration of new feature set interfacing with embedded software and hardware groups.
- Extend existing communications api to incorporate Affirm™ functionality.
- Developed well received demo highlighting Affirm™ functionality and presented at trade shows, to customers, and used for training.

Hologic

Dec 2000 to Apr 2010

Senior Software Engineer

- Hologic Selenia™ Dimensions™ user experience architect and lead engineer.
- Responsible for application and communication architecture.
- Hologic Selenia™ team lead and software engineer.
- Lead engineer, prototype development, Hologic Selenia™ Dimensions™.
- Helped define and shape communication protocol and developed software prototype with off-the-shelf communication hardware (CAN) while proprietary components were being developed facilitating parallel development and testing.
- Design and implement api used to encapsulate user interface concepts and requirements derived from design discussions with product owners.
- Product utilizes a touch screen and image display.
- Design and implement high level, event driven, user console to hardware interface. Foster reuse of this api and work with other teams to integrate it into their solutions providing the fundamental building blocks that Hologic's flagship mammography product (Hologic Selenia™ Dimensions™) is built on as well as system configuration and field calibration tools making continued system development accessible to all members of the development team.
- Lead effort to prepare new technology and legacy system demos for industry conferences (RSNA, ECR, etc.) each year. Develop and demo early acquisition workstation technology prototypes. Work closely with product management to define new acquisition workstation user interface and user interaction concepts.
- Software Engineer in the day to day maintenance of large software product (Hologic Selenia), an imaging acquisition workstation used to interface with the user and x-ray direct-to-digital technology. User interface allows the user to manipulate x-ray technique (generator interface) and preview x-ray images (detector proprietary interface).
- Provide means to reuse Selenia™ codebase allowing systems to be created for technology partners using the same underlying detector technology while providing market differentiation.

MBNA

Aug 1999 to Dec 2000

senior software engineer II

- As a team member, developed automated banking system in C++ using object oriented analysis and design and patterns.
- Developed class library for access to FileNET workflow queues and documents that formed the foundation for production code and was recognized with a peer commendation; library eases queue access and hides FileNET C API complexity providing easy to use and intuitive abstractions.
- Provide functional and technical design for a large project that automates customer case processing; design makes use of object oriented concepts and patterns; modeled using UML and the Visual Modeler (Rational Rose for Visual Studio). Lead small team in user interface design effort of the same project.
- Provided functional and technical design and implementation for a feature enhancement to an existing system; effort recognized with a peer commendation

Systems and Computer Technology Corp.

Apr 1997 to Jul 1999

senior advisory software engineer

- Lead and mentor small team of developers in updating and enhancing large Enterprise Resource Planning system (ADAGE) implemented in CA OpenRoad.
- Team was tasked with LOGISTICS component.
- Review and approve enhancements, fixes, and new features for LOGISTICS ADAGE component.

EDUCATION

Goldey Beacom College

Present

AS/CIS

PROJECTS

TA Instruments - complete web stack enterprise communications prototype

Jan 2019 to Present

Developed complete vertical slice of instrument enterprise communications for peer review over NATS.io and personally designed comms protocol. Demo used web stack that comprised feathersjs for comms to web service interface and vue.js for the front end and included a C# framework that embodies the protocol and shim code to conform instrument communications.

TA Instruments - instrument control user interface

Jun 2015 to Present

<http://tainstruments.com>

Architect and developer of TA Instruments, Differential Scanning Calorimeter instrument control user interface.

Working with product management, manufacturing, and marketing, the java application combines UI elements, workflows, and thematic stylings, in a java application framework that provides mobile app like navigation, page context help, and instrument communication.

The application embodies the "one touch away" branding and is used across the new thermal product line (DSC, TGA, SDT).

It's never been easier to get great data!

Hologic Selenia™ Dimensions™

Dec 2002 to Oct 2006

<http://www.hologic.com/en/breast-imaging/selenia-dimensions-tomosynthesis/>

Hologic Selenia™ Dimensions™ user experience architect and lead engineer.

Xray direct to digital mammography modality.

A touch screen is used for the user interface and high resolution monitor is used for xray images.

User experience is a paged interface that walks user through login, patient selection, and image acquisition based on a stack of pages similar to (Cocoa Touch) UINavigationController.

Hologic Selenia™

Dec 2000 to Present

<http://www.hologic.com/en/breast-imaging/digital-mammography/selenia/>

Senior Software engineer and team lead for development of java user interface and workstation to xray detector communication.

flicksplorer

Oct 2011 to Present

<http://www.flicksplorer.com>

<https://github.com/objectthink/flicksplorer>

Flick and swipe your way through recent flickr photos! Search for your favorite photos! See what the flickr pandas are up to and when you are ready visit the flickr photo page and see other photos from the same owner all from flicksplorer.

Available in the app store!

flicktripper

Nov 2010 to Present

<http://www.flicktripper.com>

<https://github.com/objectthink/flicktripper>

Using a flickr account, camera, and geo tagging, flicktripper is an easy to use, no frills, trip journal.

A trip is a collection of stops created by taking photos that are uploaded to flickr.

Photos are tagged using flickr machine tags making trips and stops easy to identify and download for flicktripper.

ALL trip meta data is stored in flickr machine tags.

Stops are geotagged and are displayed in the map on the flickr photo page.

A MapKit MKMapView is used to display the location data to the user and UIWebView is used to show the photo flickr page.

ObjectiveFlickr was employed to upload/download photos and query flickr through the flickr api.

Available in the app store!

iGuess Person Place Thing

Jul 2010 to Present

<http://www.objectthink.com>

My first foray into iOS, iGuess PPT is a guessing game that uses photos taken by users that are uploaded to flickr from the app.

The games meta data is stored in flickr machine tags.

Available in the app store!

CERTIFICATIONS

Amazon Web Services Essential Training

Jan 2018

LinkedIn

iOS 11 First Look for Developers

Jan 2018

LinkedIn

iOS 11 Development Essential Training: Application Architecture

Jan 2018

LinkedIn

Learning Python Generators

Jan 2018

LinkedIn

Swift 4 Essential Training

Jan 2018

LinkedIn

Python 3 Essential Training

Feb 2018

LinkedIn

Learning Apple tvOS App Development

Mar 2018

LinkedIn

Learning Functional Programming with JavaScript

Mar 2018

LinkedIn

Python: Programming Efficiently

LinkedIn

Apr 2018

Python GUI Development with Tkinter

LinkedIn

May 2018

Learning iOS Notifications

LinkedIn

May 2018

iOS 10 App Development: Integrating SiriKit

LinkedIn

Jun 2018

Advanced Python

LinkedIn

Sep 2018

Threading in C#

LinkedIn

Sep 2018

JavaScript: Classes

LinkedIn

Oct 2018

Learning Node.js

LinkedIn

Oct 2018

Learning TensorFlow with JavaScript

LinkedIn

Nov 2018

Learning Vue.js

LinkedIn

Nov 2018

Learning RxJS

LinkedIn

Dec 2018

Learning SignalR with ASP.NET Core

LinkedIn

Mar 2019

Go Essential Training

LinkedIn

Mar 2019

Architecting Big Data Applications: Batch Mode Application Engineering

LinkedIn

Apr 2019

Android Development Essential Training: Create Your First App

LinkedIn

Jun 2019

RECOMMENDATIONS

Anthony Okocha

Lead Software Engineer, Capital One

8/4/19, 2:54 PM

I worked with Steve at TA Instruments as a fellow software engineer. I benefited immensely from his deep knowledge of software engineering and his willingness to share such knowledge with his fellow engineers. Steve is extremely competent in a myriad of programming languages and frameworks. He was the technical lead in several .NET, Java and iOS projects we had at TA Instruments. He will be a great asset for any organization.

Vaishali Parikh

Software Engineer II, Microsoft

8/7/19, 9:47 AM

Amazing Software Engineer who is extremely enthusiastic about his work! I have had the pleasure of working with Steve for the 3 years I was at TA Instruments. He is a brilliant engineer who is customer obsessed and focuses his energy to delivery high quality products that are designed with the user in mind. He is constantly trying to innovate with new technologies to improve our services. I have always admired Steve for the energy he brings to room and his work ethic. He is super helpful and has always given me good feedback on my work and helped me debug some hard problems. and He is an excellent team player and an amazing person to work with.

Charles Carlson

Manager, Software Operations, Hologic, Inc.

1/23/12, 12:08 PM

I really miss working with Steve! His main software projects were clients of my APIs... we disagreed once in a while, but we were always able to explain our reasoning to each other in a constructive way to come up with solid system solutions. Steve has an amazing grasp of object-oriented software analysis and

design - I am envious! He was a dedicated and hard-working employee who was always a team player and always easy to get along with. Steve always worked hard to make sure that his software was complete, worked as designed, and was delivered on time.

Geoffrey Krakower

11/4/10, 6:11 AM

Contractor - Oracle DBA, Bank of America

It was an honor working with Stephen.
He was not only good technically but had excellent people skills and a pleasure to work with.
I highly recommend Stephen for both his technical abilities and people skills.

Pat Farina

8/9/10, 4:45 PM

Software Development Mgr, Bank of America (formerly mbna)

I had the pleasure of being Steve's manager a few years ago and gained a lot of respect for his technical abilities, for his attitude and for his leadership qualities.
Steve was the kind of guy who when given an assignment strived to develop the BEST solution to the problem, solving both near term tactical and long term strategic solutions.
Steve approached every task like that, and created some really useful and elegant solutions to his tasks.
He developed a generic, reusable services for imaging code that was being developed on a large project for MBNA, something that was not envisioned by the team's architects, but was eventually enhanced to become the basis for a whole suite of imaging services that was put in place at the bank.
The thing I liked most about Steve was his energy and enthusiasm for creating really excellent solutions, in fact his commitment to excellence is the thing that stands out after many years have gone by.
It's been a while, but I hope to have the opportunity to work with Steve again in the future - it would be a lot of fun to do so.

Sean Robinson

6/30/11, 1:32 PM

VP Product Development, Direct Digital Imaging Technology, Inc. "DDIT"

Stephen is a highly skilled software developer. His attention to detail, time management and overall personality made it a real pleasure working with him on many projects over the last 10 years. His vast knowledge of various software languages makes him easily adaptable. Not to mention his drive and determination make him a valuable asset in any organization!

Michael Becker

1/31/16, 4:42 AM

Vice President, Software Engineering, JPMorgan Chase & Co.

Steve is an enthusiastic, motivated and highly skilled software developer that I have had the privilege to work with twice now. Unlike many other skilled developers, he always has the customer in mind, whether that is the actual end user or another developer / development team he is interfacing with. Steve's code is clear, well documented, and guaranteed to function. He also has the highly rare quality of unit testing and system testing everything he does before he calls it done, so you know it actually is done and will work. I cannot recommend Steve highly enough and I would not hesitate to work with him again in the future.

Adam Hughes

11/26/14, 7:32 AM

Member Of Technical Staff, Trello

Stephen is an experienced developer, always willing to learn more and go the extra mile. He was able to help us migrate off of legacy systems and transition into developing new features and projects that we would not have been able to do without him. In addition to the skills he was able to bring, Stephen is a great guy. He was a pleasure to work with and a valuable member of our team.

Chris Hughes

5/11/11, 7:36 AM

CSV Software Quality Engineer, Philips Healthcare

Stephen is a top tier developer... As a Test Engineer I had the pleasure of working with Steve for many years...
His System Knowledge, Skill
and Helpful Attitude were unmatched.

Jeffrey Yorker

5/12/11, 6:02 PM

Technical Director, Hologic

I worked with Steve for 10 years while he was a software developer with Hologic.
Steve developed application software for several medical workstation products and was responsible for the workstations' graphical user interfaces and the communication of the workstations with real-time subsystems.
Steve actively seeks out direct interactions with product management and customers.
He was a key contributor to the demonstration of new products to customers at trade shows.
He is energetic, easy to work with, and enthusiastic about his work.

Neil Kraemer

5/22/14, 3:25 PM

Power Trader, XO Energy

Steve was a pleasure to work with as well as a knowledgeable asset that was always willing to do what was needed for the team.

Dan Farber

5/2/11, 8:31 AM

Project Manager / Systems Engineer, Asto CT

Clearly the go to guy in his team.
Steve is not only highly respected for his technical skills but for his graceful leadership, his witty sense of humor, his good nature, and his eternal optimism.
He has taken on some of the companies most visible and difficult flag-ship projects and released them all with a resounding sense of success.
Steve is a very hard working, productive member of the team.
It is clear that he really enjoys what he does and we all enjoy working with him.

It is my pleasure to give Steve my highest recommendation.

Eric Henry

7/7/10, 10:23 AM

Senior Quality & Regulatory Compliance Expert, FDA & Life Sciences Practice, King & Spalding

Steve is a highly skilled software engineer, with a calm demeanor and a great sense of humor. His willingness to help or mentor others makes him a true partner to those in his own group as well as those in collaborating groups.

Steve is in high demand within Hologic because of his expertise in the design and development of the company's most advanced technologies. His lack of pretense and his approachability make Steve not only a strong technical force within the company but a true facilitator to the business.

Kelli Sheehan

2/25/14, 5:36 AM

Energy trader, XO Energy

Stephen was a pleasure to work with. While we worked in different areas, Stephen was always punctual and rarely took time off. Stephen came to work with a smile on his face each day and was always willing to learn new skills.

Thomas Farbizio

4/30/11, 8:02 PM

Lead Mechanical Engineer, Hologic

Steve and I helped develop a very successful product for a high end Medical Imaging Company.

He is an excellent coworker- very helpful, responsive and cooperative.

I like that he not afraid to roll up his sleeves and go above and beyond his domain of expertise to resolve issues.

Michael Becker

6/5/10, 11:07 PM

Vice President, Software Engineering, JPMorgan Chase & Co.

Steve's passion for software development is only rivaled by his drive to create the right solution for the problems at hand.

He is one of the few people who is able to work with end users, understand their needs, and then translate those into functional software.

It has been my pleasure to work with Steve across numerous design and implementation tasks throughout my years at Hologic.

Matthew Thompson

2/18/14, 8:32 AM

Partner, XO Energy

Steve is a very talented, hard working and creative software engineer. His talents greatly improved the company productivity and was also a pleasure to work with. I highly recommend Steve.

Wayne Tang, CISSP, GWAPT

4/29/11, 11:33 AM

Senior Cybersecurity Engineer, FreedomPay

Stephen is a rare individual who possesses great technical skills with strong people skills. I admire his sense of professionalism and dedication to getting the job done. It was great having him as a co-worker and I think he would make a great asset to any organization that not only demands a great developer but also a real team player with a genuine heart.

Stew Schiffman

9/28/09, 11:01 AM

Sr. Principal Software Architect, Hologic

Luba Grechko

4/27/11, 6:24 PM

Manager Development, Allscripts

Steve is a well-organized, exceptional developer. His expertise, focus, outstanding communication skills, and creativity have made him a valuable asset and I highly recommend him.

Chris Ruth

4/27/11, 6:46 AM

Director of Image Processing, Breast Health, Hologic

I have great respect for Steve. He was dedicated and creative employee of Hologic, and great to work with. I was sorry to see him leave.

Adrian Hunsdon

4/27/11, 4:13 AM

Senior Manager, Embedded Software Engineering, Hologic, Inc.

In my work with Steve, he always demonstrated a willingness to get the job done and make sure that the customer got what they wanted, when they wanted it.

His skill and determination delivered good , working code on time and ready for demonstration to customers both internal and external.

It was my pleasure to work with Steve and I would recommend his services without reservation.

Aaron Fand

12/29/10, 10:26 AM

Sr. Mobile Solutions Architect / Sr. Managing Consultant, IBM

Stephen is a strong leader of his peers.

His architecture has proved a solid basis for the entire team to build successful products and is one of the main pieces of software for the entire division if not enterprise.

He is well respected because he listens to needs of many different aspects and is able to find best solutions for everyone rather than forcing his designs onto everyone else.

Ian M. Shaw

7/26/10, 3:31 AM

Senior Director—Advanced Product Development, Hologic Inc., Breast Imaging Division

Writes good code. Works hard and understands system requirements. Gets the job done. Has a decent sense of humor in even the most troublesome times, a pleasure to work with.
