## Ivan Ramiscal

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34 N Fenwick St. Arlington Virginia, 22201

# **Profile**

Software solutions architect and engineer with extensive experience designing, developing and deploying software systems. A trusted technical advisor specialized in guiding customers with the art of the possible.

# Experience

#### SOLUTIONS ARCHITECT • MAPBOX • WASHINGTON, DC. MAR 2019 - NOV 2020

Ivan provided expert technical guidance to Fortune 500 companies on their system architecture and design challenges with big data geo-data visualizations and location data. A technical advisor to companies such as NBCUniversal, Ford, GM, SwissRe, GuyCarpenter, Moody's and PSEG, providing guidance with the art of the possible proof of concept prototypes, and in-depth system architecture and system design reviews. Hands on experience developing software projects with javascript, node, ruby and swift.

### LEAD SOFTWARE SYSTEMS ENGINEER • THE MITRE CORPORATION • MCLEAN VA. OCT 2010-MAR 2019

Software engineer lead in Software Solutions and Technologies department Software Engineer, Hedonometer

Daily Twitter sentiment detection using D3, Ruby, AWS; designed and developed website and data visualizations. https://hedonometer.org/about.html

*iOS Developer, Mild Traumatic Brain Injury MITRE Innovation Project*Ported MatLAB algorithm to C using MatLAB coder; implemented in iOS iPad app to analyze user performance in visuomotor test results.

Lead Developer, Illustration-centric Data Visualization Development Browser-based toolkit to facilitate the creation of data visualizations.

Lead Developer, Continuous Immersive Systems Engineering
Anonymous sentiment elicitation survey system; an iPad app to capture honest feedback from reviewers; used by the US Census in 2020, Census Field Infrastructure Session.

#### SENIOR TECHNICAL ADVISOR • THE MITRE CORPORATION • MCLEAN VA. 2016-2019

Developed the mentoring strategy, built collaboration and management tools to improve department communication between management and staff; instituted weekly Software Hangouts and Lightning Talks for knowledge sharing and department team building.

#### SOFTWARE ENGINEER TEAM LEAD • SRA INTERNATIONAL • FAIRFAX VA. 2004-2010

Project Lead • Department of Justice, Office of Justice Programs, Web/Portal Team Led the Web/Portal team in the development and management of web apps tool suite and web sites at the Office of Justice Programs OCIO.

Software Developer • Pension Benefit Guaranty Corporation

Created programs using XML, XSLT, XPATH and XPointer. Analyzed XML data, implemented XSLT stylesheets to target and extract specific data from XML files to build their website.

### SYSTEMS ANALYST • SCHAFER CORPORATION • ARLINGTON VA. 2001-2004

Detailed analysis and systems design of software system simulations.

Software developer for a C4ISR information architecture tool for the Joint Theatre Air and Missile Defense Organization (JTAMDO)

Project Lead of US Air Force Research Laboratory (USAFRL) Small Business Innovative Research (SBIR) project. Enable USAFRL users to search archived Microsoft PowerPoint slides, and Microsoft Word documents.

#### SOFTWARE ENGINEER • WORLDWEB.NET • ALEXANDRIA VA. 1999-2001

Built import export tools between QuarkXPress and the ExpressRoom Content Management System.

#### SOFTWARE DEVELOPER • WJSA • ARLINGTON VA. 1996-1999

Detailed analysis and systems design of software system simulations

Developed C4ISR information architecture tool, using Java, XML, XSLT and SVG, for the Joint Theatre Air and Missile Defense Organization

Developer on Information Architecture Dynamic Model development team for the National Missile Defense Lead System Integrator

Constructed 3-D model of the Space Based Laser constellation of satellites. Developed in VRML, CosmoPlayer, VRMLScript, and HTML.

# Education

University of St Andrews – BSc Pure Science Corcoran School of Art – Digital Art & Digital Video

# **Teaching**

# Johns Hopkins Applied Physics Laboratory

Exploring Data: Visualization

https://www.aticourses.com/events/125-exploring-data-visualization/

### MITRE Institute

Data Visualization as a Deployable Service with Ruby & D3 Data Visualization for Complex Systems

# Recognition

# MITRE Director's Award Bringing Real World STEM

https://www.mitre.org/about/corporate-social-responsibility/building-a-foundation-for-the-future/bringing-real-world-stem

## SRA Employee of the Month CFGO

# **Projects**

Devised solution to create broadcast quality map animations for a Big Three television network in the US. This solution enables the creation of map animations for breaking news in minutes.

Clustered data https://vimeo.com/435368351 Broadway 3D Buildings https://vimeo.com/454526671 Grand Canyon https://vimeo.com/435368452

## Obstacle Avoidance Algorithm

Designed and developed client-side obstacle detection and route avoidance. https://docs.mapbox.com/help/tutorials/route-avoidance-with-turf-mapbox-directions

## **COVID Movement Story**

Built COVID story with Mapbox Movement https://vizla.s3.us-east-1.amazonaws.com/movement/index.html

## Feature Extraction Story

Built Feature Extraction Story with Mapbox Imagery https://vizla.s3.us-east-1.amazonaws.com/imagery/index.html

# Location intelligence dashboards

Designed and developed highly performant large scale location intelligence dashboards with turn-by-turn navigation, geolocation, satellite image cards. Developed emergency dashboard prototype; Built border wait times dashboard prototype.

## **Store Locator Concepts**

Tightly integrated and responsive updating of the information panel when zooming and panning through the map.

Best Buy Store Locator https://bl.ocks.org/ivaner/cf7a7e084235905eefba9f4fbf7d374e Red Roof Inn Store Locator https://bl.ocks.org/ivaner/e4f321e81632e0442daee5583add0b04