

# steve richey

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Legacy software maintenance, mobile software development (iOS and Android), augmented reality, machine learning, and computer vision. I am a voracious learner always seeking a new challenge.

## Corgibytes

### 2022-Present

- Fortune 500 Financial Services Client
  - Build pipeline migration, dependency updates, and vulnerability remediation
- National Health Care Services Client
  - Git integration, automating deployments, consultation on build pipelines

## Float

### 2014-2022

- SparkLearn
  - Lead developer of cross-platform mobile efforts, providing SaaS white-labeled mobile learning applications to Fortune 500 clients
  - Devops improvement to support continuous integration, testing, and deployment of dozens of applications from a shared codebase
  - Architecting, feature development, bug triage, and sprint planning
- VPI
  - Developed a ground-up implementation of computer vision on iOS using neural networks trained in TensorFlow and integrated with augmented reality for product recognition, including development of the training pipeline and iOS library
  - Architectural design of methods to distribute new models and retrain using new images captured by users to achieve high levels of real-world prediction accuracy
  - Experience with iOS APIs including SceneKit, ARKit, CoreML, and more, with a focus on real-time product recognition and integration with existing order and inventory solution
- Cydalion
  - Lead developer of an application for Android Tango devices, converting depth camera sensor data into navigation assistance for people with vision impairments
  - Applied for and was granted funding as part of Google's incubator for augmented reality projects using Tango technology
  - Work with potential customers to identify needs and develop an application that provides visual and auditory cues for obstructions, trip and head bump hazards
- Other

- Attended multiple conferences to meet with potential clients and explain technical solutions, including unglamorous booth work
- Independently developed bespoke AR solutions for clients in many industries
- Gave talks relating to ongoing work, including work in eLearning, augmented reality, machine learning, computer vision, and more
- [Wearable tech expert](#) (aka weachspert)

## U.S. Navy

- Engineering Watch Supervisor, 2007-2008
  - Directly supervised 10 naval personnel during critical operations of the ship's nuclear power plant
  - Designed training procedures and presentations to train new employees
  - Three Navy & Marine Corps Achievement Medals
  - Secret security clearance
- Nuclear Technician - Electrical Operator, 2001-2007
  - Responsible for the control of the ship's generators in response to emergencies
  - Radioactive material training on preventative safety, handling, and emergencies
  - Operation and timely repair of complex equipment

## Education

- Master of Business Administration (MBA)
  - Illinois State University
  - 2011-2013
- Bachelor of Science in Renewable Energy
  - Illinois State University
  - 2008-2011
  - Summa cum laude graduate with honors
  - Minor in economics

## Languages and Frameworks

- Expert (9+ years): Python, Java, JavaScript, C#, Kotlin, Objective-C, Swift, Android SDK, iOS Frameworks, .NET Runtime, Xamarin, SQL
- Novice (2+ years): Haxe, TypeScript, Apache Cordova, Ruby
- Rookie (<1 year): Rust, Elm, ReasonML, CQL. React

## Publications

[Utilizing Presence in Augmented-Reality Applications to Improve Learning Outcomes.](#)

*Performance Improvement*, Volume 57, Issue 4 (2018).

[The Automated Workplace: Between AI and Human Understanding](#). *Peoria Magazine, Interbusiness Issues*, October (2017).

Utilizing Student Preferences to Improve Payback Periods for Energy Efficiency Upgrades to Apartment Renovations. *Poster presentation at the Associated Schools of Construction International Conference*. Co-writer: Dr. Richard Boser, Professor & Chair, Department of Technology, Illinois State University (2012).

[Analyzing the Impact of Shading on Photovoltaic Arrays to Optimize System Effectiveness](#). *Presented at the 6th Annual Green Energy Conference*. Co-writers: Dr. Jin Ho Jo, Associate Director, and Dr. David Kennell, Associate Director, Center for Renewable Energy, Department of Technology, Illinois State University (2011).

## Patents

[Visual Product Identification](#). Pub. No. US 2021/0407109. With: Quentin T. Young, James Raymond Ferolo, Chad E. Udell. Maui Jim, Inc. (2021)

## Presentations

[Code is Communication](#). *MenderCon*. 2022.

The Business Case for AI-backed AR and Lessons Learned in Building It. *Realities 360*. (2019).

Leveraging Computer Vision for Superior Performance Support Solutions. *Realities 360*. (2018).

Designing and Building Meaningful Augmented Reality Interactions. *Realities 360*. (2017).

[Enterprise-Grade AR for Operational Environments: A Postmortem](#). *Unity Vision VR/AR Summit*. 2016.

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