

# ABHAY RAJAN

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Work Authorization: Green Card

## PRINCIPAL SOFTWARE ENGINEER

**Full stack developer** with 12+ years of software development experience on the JavaScript and .NET stacks. Wrote, shipped and owned several frontend and backend features for SaaS, Web and Desktop products. Also reviewed code, gave demos at company summits and symposiums, provided engineering support for customer issues and mentored new hires.

## TECHNICAL SKILLS

<b>Languages:</b>	JavaScript, C#, C++, HTML, CSS
<b>Frameworks:</b>	Node.js, AngularJS, Express, Bootstrap, .NET, WPF
<b>Databases:</b>	SQL Server, MySQL, Couch NoSQL, ElasticSearch
<b>Cloud:</b>	AWS – EC2, RDS; Azure – VMs, IoT Hub
<b>Other:</b>	Kibana, Fluentd, Docker, Git/Bitbucket, TFS, JIRA, Confluence, Balsamiq

## EDUCATION

**University of Illinois at Chicago**, Chicago, IL

M.S. Electrical and Computer Engineering - Thesis in Machine Vision & Image Processing

**Harvard University**, Cambridge, MA

Graduate level courses at the Extension school – Building Mobile apps, ASP.NET apps

## PROFESSIONAL EXPERIENCE

**JOHNSON CONTROLS** (formerly Tyco), Austin, TX

**2007-Present**

### Principal Software Engineer

Responsible for writing frontend and backend features for a range of software products

- Designed, coded and shipped 10+ features targeting the JavaScript and .NET stacks. Met all delivery deadlines. Followed Agile processes.
- Resolved issues at customer sites and trade shows which contributed to customer retention and a better product experience.
- Picked as a representative of the R&D team to tour customer sites, gather feedback and share it with management.
- Nominated to the Architecture team to evaluate customer feedback and write proposals to improve product usability and performance.
- Successfully collaborated with global teams in the UK, China and India to integrate their products and features into the core platform.
- Selected to attend conferences; Shared learning and best practices with the development teams.

**Major features delivered****Reporting and Data Visualization**

- Data Intelligence (DI) as a Service – Wrote features for a DI SaaS app that visualized sensor data and was deployed on AWS. Stack: AngularJS, Node.js, MySQL
- Video Analytics Reports – Wrote a report builder for a web app that created scheduled reports based on video intelligence data. Stack: AngularJS, Node.js, CouchDb
- Journal Data Visualizer – Wrote a data visualizer for a desktop app that visualized Journal, Video and Point of Sale (POS) data. Stack: C#, WPF, SQL Server
- BI Prototype – Wrote a Reporting as a Service prototype with Tableau and Microsoft Azure

**Health Monitoring, Event Management, Video Search and Retrieval**

- Health Monitoring Dashboard – Wrote the backend engine and the frontend dashboard to display health alarms from security devices. Stack: C#, WPF, SQL Server
- Event Monitor – Wrote a web event monitor to retrieve and display events from the application server using websockets. Stack: AngularJS, Node.js, SockJS
- Video Search – Wrote a web interface to search for video clips. Stack: AngularJS, Node.js

**Diagnostics, Embedded Web**

- Centralized Log Management – Wrote a log aggregator to centralize app server diagnostics logs in ElasticSearch. Stack: C#, Fluentd, ElasticSearch, Kibana, Docker
- Startup Wizard – Wrote a startup wizard that was part of the Linux firmware for an integrated video & access control appliance. Stack: AngularJS, Node.js

**TRIDENT TEK** (acquired by Tyco), Germantown, MD**2007****Senior Software Engineer**

- Wrote integrations in C# for the company's video management product
- Wrote a Video Player in C# using open source video libraries

**VIDEOMINING INC**, State College, PA**2005-2007****Research Engineer**

Responsible for researching solutions and writing software for vision based computer interfaces

- Wrote algorithms in C++ for head pose estimation, head tracking and face detection
- Collaborated with Penn State researchers to develop interfaces for people with MS

**ADDITIONAL ACCOMPLISHMENTS****Awards for Excellence and Teamwork** at Tyco, featured twice in the company newsletter for innovation and collaboration**Patent (Published)** - System and Method for Video/Audio and Event Dispatch Using Positioning System <http://google.com/patents/US20150049190?cl=en>**.NET certification** – Application Development Foundation