

# Zachary Riesland

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## PROFILE

### Senior Principal Data Engineer At Sensus (a Xylem Brand)

**Current focus:** big data / data lake / AWS technologies / serverless / scalability

**About Me:** A+ problem solver.

Summa Cum Laude graduate (with a 3.99 GPA) from North Carolina State University, where I was part of the inaugural class of the University Honors Program.

The world of software has evolved. Technology is changing faster than ever, and projects need people who can learn quickly, adapt, and stay ahead of the curve. That's where I thrive.

After 14+ years of professional software development, I recognize that ANY problem can be solved, and that the way I work is a reflection of who I am -- so I always give 110%. I have a consistent record of excellence professionally, and I guarantee that if you give me a chance, I'll blow you away.

### I Regularly Work With:

- ✓ Data Lake
- ✓ Java / Maven
- ✓ SQL
- ✓ Scala
- ✓ Web Programming
  - Javascript
  - CSS
  - Etc
- ✓ Hadoop / Hive / HDFS / HBase
- ✓ Apache Spark
- ✓ Apache Nifi
- ✓ Amazon Web Services:
  - AWS Batch
  - Step Functions
  - S3
  - Athena
  - EMR
  - API Gateway
  - Lambda
  - Cognito

## EDUCATION

### North Carolina State University, Raleigh, NC

- Graduated Summa Cum Laude through University Honors Program; GPA: 3.99
- Bachelor of Science in Computer Science; May, 2005

## EXPERIENCE

### **Senior Principal Data Engineer, Sensus    Durham, NC — 2017-Present**

"A data lake is a bet against the future – you don't know what analysis you might want to do, so why not just keep everything to give the best chance you can satisfy any requirement that comes along?"

My job is to help Sensus bet against the future by storing everything we can from a network with hundreds of millions of devices.

I help lead a tiny team that maintains the on-premise Hadoop data lake while rebuilding everything bigger and better in AWS.

### **Senior Analytics Software Engineer, Sensus    Durham, NC — 2014-2017**

Design (architect), develop, and maintain a full Hadoop stack for smart grid data analytics.

We (me and two other guys) started from scratch with Hadoop and built a data lake that handles more messages per day than Twitter.

The data flow is CSV->ETL->Hive->Phoenix->HBase. I also built a UI application (*JS, JQuery, Bootstrap.js, AMCharts, Google Maps API, GSON, JAXSON, etc*) that serves this data to reporting and charting tools to serve BI needs. Management has already been able to leverage data from our project to make important business decisions and save money for our company and our customers.

In the process, we learned everything the hard way, including Ambari, Hive, YARN, MapReduce, UDFs, HBase, Phoenix.

Our team doesn't have a sysadmin, so we also learned a lot about the Linux configuration behind Hadoop nodes, like swappiness, transparent huge pages, etc.

### **Level III Engineer, Cisco Systems    RTP, NC — 2012-2014**

Front-end (*JSP, Javascript, HTML, CSS, DOJO, AJAX, etc*) and back-end (*Java, SQL*) work on a **distributed, scalable, cloud-based** application that uses technologies like SNMP and FTP to collect data from network devices and provide smart interfaces for interacting with the data.

### **Senior Fuel Engineer, Gilbarco Veeder-Root    Greensboro, NC — 2008-Present**

Full-time software developer/designer. My job is dramatically different from week to week. I work in C, C++, Java, VB, C#, SQL, JAXB, and XML on a regular basis. My job requires me to setup complicated test scenarios using multiple computers, virtual machines, and emulators, and requires the ability to navigate through several thousand lines of legacy code. I am part of a large team, but usually work remotely, which requires intense discipline and crisp communication. Contact me for more details.

### **Software Engineer, Intelligent Information Systems    Durham, NC — 2006-2008**

Full-time software developer/designer. Three major projects, including smart client and web client with major database back-ends under government contracts. Intense understanding of business use cases required. Small and large team dynamics, including remote development teams. Many different roles, including technical team lead. Technologies include .NET 1.1/2.0.3.0, C#, ASP, Visual Studio 2003/2005, Javascript, XML, NUnit, N-Coverage, FX-Cop, Codesmith and MyGeneration (dynamic code generation), CSLA, TestDriven.NET, MS Sequel Server 2003/2005, Oracle 9i/10g, ODP.NET, Infragistics, ASPose, MS Exchange API, Batch Programming

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More experience available upon request...