

# Steven Hicks

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📍 Chicago, IL

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## Summary

Over a decade of progressive professional software development experience in conjunction with more than two decades as a hobbyist developer has pushed me to reduce the burden of support and cost of delivery by writing highly-maintainable software of the highest caliber.

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## Experience

### Rally Health/Optum Digital

2020 - Current

#### Principal Software Engineer

- Architecting complex systems and decomposing them into clear delivery plans for speed, maintainability, and stability
- Mentoring others in functional programming, system-design, and scala concepts, massively reducing code complexity
- Led a team to build an GraphQL service (With Caliban, ZIO, and Scala) from scratch in 2 months handling 300RPM+ reliably
- Reduced integration time amongst multiple services from 3 months to 2 weeks
- Architected and lead development for a data pipeline to process activities into rewardable earnings.
- Led initiatives to replace services with 0 downtime
- Caught multiple memory leaks, reducing downtime in production and preventing data loss
- Production deep dives spanning many systems

**Tech Used:**Scala, Play, Slick, Postgres, Mongo, Datadog, ZIO, Caliban, Play Framework, Scalatest, AWS, RDS, K8s, Mesos, Lambda, SQS, Golang, SNS, Terraform, Github Actions

### Zebra Technologies

2018 - 2020

#### Lead Software Engineer

- Managed a team of 8 engineers to deliver solutions for the SmartPack project
- Created a generic data library and mongo DSL to reduce development time and simplify test creation
- Implemented automated checks to ensure code coverage
- Led initiatives to decrease the time to production for new services via Giter8 templating
- Mentored others learning Scala and best practices across various timezones
- Assisted with creating a Lunch and Learn series
- Found and fixed memory leaks, in one case, reducing memory footprint from 6gb to 250mb (96% savings)
- Reduced overall data pipeline memory footprint from 28gb+ to 12gb (60%+ savings)
- Led initiatives to upgrade the Kafka infrastructure from version 0.11 to 2.3 for better reliability and improved developer experience
- Contributed to the effort to migrate from Docker Compose to Kubernetes

**Tech Used:**Scala, JSON4s, Mongo, Kafka Streams, Scalatest, Docker, K8s

### SpotHero

2018 - 2018

#### Contract Engineer

- Reduced size of weather data in Redshift, by 99.9% from 2.8TB to 5GB without data loss
- Implemented query and data optimizations that reduced data analysis time for business analysts from hours to minutes
- Improved Airflow jobs by adding new functionality and improving maintainability and stability
- Contributed improvements to the pyResposnys open source library
- Performed profiling and use case analysis to improve long running Redshift query run times by 80%

**Tech Used:**Python, Airflow, AWS Redshift

### HERE

2015 - 2018

#### Senior Software Engineer

- Drastically reduced cycle and delivery time for features via functional, performance, and stability improvements, increasing unit test coverage and implementing bugfixes
- Reduced time from code release to deployment from 2 days to 1 hour
- Led significant initiatives to increase testing coverage and code reuse
- Implemented alerting to improve stability of a data pipeline
- Served as the communications/education sub-group lead for the Code Review Working Group
- Collaborated with other framework teams to resolve critical bugs
- Maintained existing data pipeline
- Mentored co-workers in working with Scala and ScalaTest

**Tech Used:**Scala, Redshift, Akka, AWS, EC2, Docker

### GoHealth Insurance

2014 - 2015

#### Software Engineer III

- Automated import, auditing, and validation of data from Excel documents, reducing time to market from 2 weeks to under 1 hour
- Performed deep dive live-site debugging in production systems with AngularJS and

- Grails
- Researched and resolved performance issues involving multiple services and APIs
- Automated manual build process with Ruby, Jenkins, and Mercurial, saving over 4 hours per build, per sprint

**Tech Used:** Groovy, Grails, Postgresql, AngularJS, Excel COM Automation

## Avnet Technology Solutions: Formerly Seamless Technologies

2011 - 2014

### Solutions Engineer

- Built, maintained, and enhanced cloud systems via IT automation with HP automation suite (Server Automation, Operations Orchestration, Cloud Service Automation) and VMWare-related products
- Successfully tackled many challenges arising from rigid network and security policies, high pressure demands, and tight deadlines at many medium to large organizations
- Led Lunch and Learn sessions to update coworkers about new products within HP suite
- Staples: Wrote HP CSA clone fitted to customer demands
- PayChex: Reduced VM deployment time from 1 month to under 1 hour
- UHG: Improved the reliability of the IaaS deployments, reduced the amount of priority bug fix tickets and assisted in the HP-OO9 to 10 migration.
- AT&T: Replaced non-formalized and manual VM build process. Reduced work time from 1 week to 30 minutes per VM.

**Tech Used:** HP Server Automation, HP Operations Orchestration, HP Cloud Service Automation, VMWare vSphere, Python, Java, Groovy, Bash

## Skills

**Languages:** Scala, Groovy, Java, C++ (Visual, Managed, GCC), C, C# (.NET/MONO), Golang

**Scripting/Markup Languages:** Python, Ruby, PHP, Javascript, Bash, CSS, XML, XSLT, XPath, MATLAB, ASP.net, HTML, Prolog, Erlang

**Frameworks/Libraries:** Kafka Streams, Kafka, ScalaTest, Akka, PicoContainer, Jackson, Win32, JasperReports, JUnit, Spock/BDD, ScalaTest, Grails, PowerMock, GraphQL, Hadoop, Dropwizard, Spock, JSON4S, ZIO, KafkaStreams, Caliban

**Databases/Data Storage:** XML, JSON, MySQL, YML, MS-SQL, Derby, MongoDB, Redshift, Postgres SQL, Couchbase, SQL Server, HERE Datastore

**Tools:** Maven, New Relic APM, Airflow, Datadog, CI/CD, SBT, Jenkins, GIT, Hg, SVN, CVS, Tomcat, Gitlab, Github, SBT, Gradle, Maven, HPOO, HP-CSA

**Cloud Tools Proficiency** OpenStack, VMWare vSphere+ESX, AWS ECS, EC2, S3, CloudFormation, Cloudwatch, Redshift, RDS, Docker Compose, GCP, Kubernetes

## Projects

- **Awesome-kafka** : Maintain a list of Kafka resources. [github.com/monksy/awesome-kafka](https://github.com/monksy/awesome-kafka)
- **Serialization Checker** : A Scala tool that helps with confirming that data objects match their serialized versions. Encourages example based testing.
- **Meetup Broadcaster** : Scala based service that monitors for new events on Meetup, and then broadcasts on Twitter and Reddit.
- **Financial Market and Strategy Simulation System** : Web backend, data stores, custom test framework, distributed computing, highly concurrent code, backtesting of strategies and visualization previous runs.
- **Cross Platform Ebook Library System** : Ebook Library Management System: Aggregating, data scraping, and clustering for better indexing and retrieval.
- **404Browser** : Copyrighted Web browser with over 100k downloads
- **Mobilizon** : Open source project for Event hosting/management. Improved the documentation for self installs.
- **Self Hosting (Various)** : Self hosting various open source projects in order to support personal needs for development and entertainment. Sentry, Gitlab, Airsonic, Kavita, NextCloud, Docker Registry, Jenkins, FreshRSS, Speedtest, Portainer

## Presentations

- Streaming Architectures Intro and Best Practices
- Graph QL and You (Intro)
- Caliban Walkthrough
- Innovation Sprint Talk: Maven Transitive Dependency Conflict Resolution (Tools)
- Lunch and Learn: Kafka Streams (A POC and an Introduction)
- JUG Talk: I didn't know you could do that with Groovy
- JUG Talk: Testing With Spock
- Hack Week Talk: Akka Clustering
- JUG Talk/Lunch and Learn: Refactoring the Monolith: Alternatives to Microservices
- Reviewed and provided feedback for Programming Kotlin by Venkat Subramaniam
- Group session: Lead group session on Digital ownership and Privacy at jCReTe 2019

## Education

### UNC at Charlotte

Masters: Computer Science

2008 - 2010

### Elon University

Bachelors Of Science: Computer Science

2004 - 2008

## Certifications

- CompTIA Linux+ Professional
- HP0-M33: HP Operations Orchestration (2012)