

# Patrick Garrity

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**Education:** St. Olaf College, Sept 2008 - Jan 2012

## Summary

I am a skilled technical architect and programmer. I have been writing code for most of my life; I love what I do and am committed to excellence. I am interested in both architectural and pure engineering roles. I enjoy mentorship and growing organizations both technically and in areas such as domain expertise, writing, design, and communication.

While my professional experience is mostly JVM-oriented (primarily Scala and Java), my personal history has taken me through a number of languages and development paradigms. I also have experience with Kubernetes, AWS, secret management, CI/CD pipeline development, and more. I place high value on quality logging, metrics, alerts, auditing, and (encompassing some of these) distributed tracing. I push my teams to grow, and to apply *rigor* to all decisions.

## Optum (formerly Rally Health)

*Oct '18 - Present*

### Architect (Principal Engineer, Level 30)

*Feb '22 - Present*

- Leading a complete product overhaul to merge two major teams into a single platform (includes fundamental implementation for the updated platform).
- Designed, presented, successfully sold, and bootstrapped a major architectural overhaul impacting at least 10 teams.
- Coached team members on solution and implementation design for major product initiatives.
- Coached and collaborated with architects and product leads across 4 teams for 5 priority projects.
- Developed a deep partnership with our product team and became a key player for all project intake.
- Managed cross-team solution design, including connecting teams that didn't know they needed to talk to each other.
- Designed and implemented a robust Kafka-based application for our top-of-funnel data pipeline in addition to designing the project solution at the system level.

### Principal Software Engineer

*Feb '20 - Feb '22*

- Spearheaded and supported the adoption of Architectural Decision Records within my team. Coached engineers on technical writing and design.
- Designed, pitched, received approval/funding for, and implemented a new application for functional test result management, history, debugging, and more. This tool became the primary debugging and release certification mechanism for our team with respect to functional tests.
- Proposed and implemented twice-per-week Q&A sessions for my team on any topic. I led these until I left the team.
- Migrated my team's entire application suite to Kubernetes.
- Led an application tuning exercise which saved my team thousands per month (roughly \$5k) on cloud hosting costs.
- Redesigned the data layer for, and rescued via emergency code changes, an application which was causing severe problems in production leading into our busy season.

- Implemented (Jenkins) CI/CD pipelines which modernized our build process.
- Designed and implemented a "rules engine" (no mutable state, restricted to predicate evaluation) to support product-owned logic and reduce hardcoding of volatile rules.
- Designed, developed, and maintained several additional shared libraries (configuration, logging, tracing, test data generation, domain standards, etc.)

### **Senior Software Engineer**

*Oct '18 - Feb '20*

- Designed, pitched, received approval/funding for and implemented a new test framework for functional tests. This framework was adopted company-wide.
- Redesigned and implemented performance tests for our critical "edge" applications.
- Supplied critical fixes and development for the Advantage platform launch.

### **The Nerdery**

*Oct '14 - Sept '18*

#### **Principal Software Engineer**

*Feb '17 - Sept '18*

- Technical lead for extended project. Collaborated with client's architect on long-term technical direction and architecture of a Java application suite. Focus on reliability and scalability.
- Assumed partial DevOps workload in AWS including management of our primary deployment environments and scalable CI.
- Official technical mentorship role with assigned mentees from within the JVM group.
- Adopted the "JVM Domain Lead" role which involved quarterly roadmap development, finding training opportunities, managing our hiring process/materials, and unifying the group across offices.

#### **Senior Software Engineer**

*Feb '16 - Feb '17*

- Technical lead for Scala web application suite. Defined an approach to development explicitly to support a team inexperienced with Scala and accelerate their growth.
- Performance-oriented debugging and led a massive application-wide refactor.

#### **Software Engineer**

*Oct '14 - Feb '16*

- Batch and real time processing with Apache Storm and Cassandra
- SSO platform development
- Apache Spark data ingest platform

### **Internet Broadcasting**

*Mar '12 - Oct '14*

#### **Software Engineer**

*Mar '12 - Oct '14*

- Worked within a small engineering team to enhance and support a Java CMS designed to support news and broadcast companies.
- Took over, converted and maintained a large suite of legacy software.

### **Proficiencies**

Java, Scala, JVM, RDBMS, NoSQL, Kafka, Microservices, CI/CD, Cloud, Leadership, Mentorship, Architecture, API, Events, Git, Testing, Automation, Documentation, Kubernetes, Tracing, Logging, Telemetry