

# Ken Colvin

Principal Software Engineer | Platform Architect

Charlotte, NC | 980-475-5891 | Ken.W.Colvin@gmail.com | linkedin.com/in/ken-colvin

## SUMMARY

Principal Software Engineer with 30+ years of experience architecting and delivering enterprise-scale financial and business platforms. Proven track record building and owning mission-critical systems supporting multi-billion dollar monthly financial workflows, large-scale compliance operations, and executive decision-making platforms. Hands-on technical leader who defines architecture, mentors engineers, and drives scalability, reliability, and long-term production stability across complex systems.

## CORE EXPERTISE

Platform Architecture, Distributed Systems, Financial Workflow Systems

Laravel, PHP, Object-Oriented Design

Database Architecture, Schema Design, Query Optimization

MySQL, PostgreSQL, SQL Server, MariaDB

AWS (EC2), Linux (Red Hat), Apache, Nginx (Reverse Proxy)

CI/CD Pipelines, Deployment Automation, Git Workflows

Azure DevOps (Repos, Pipelines, Boards)

Business Analysis, Requirements Definition, Technical Documentation, Stakeholder Alignment

Technical Leadership, Mentorship, Architectural Decision-Making

## EXPERIENCE

### Nebraska Medicine - Principal Software Engineer | 2023-Present

- Architected and delivered enterprise platforms supporting multi-billion dollar monthly financial workflows including claims, payment processing, and reporting
- Designed scalable data models and workflow engines supporting 20,000+ compliance audits within two years, replacing manual processes
- Built executive dashboards providing system-wide visibility into compliance performance and operational risk
- Defined architectural standards and patterns adopted across multiple systems and developers
- Led enterprise-wide WCAG 2.1/2.2 accessibility compliance initiatives, implementing front-end and application-level changes across multiple platforms to improve usability and ensure regulatory compliance
- Acted as principal technical authority, mentoring engineers, reviewing implementations, and enforcing architectural consistency without formal management responsibility
- Influenced technical decision-making across teams, aligning systems with scalability, maintainability, and long-term operational goals
- Owned full platform lifecycle including architecture, development, deployment, and production stability
- Modernized legacy systems into scalable Laravel-based architectures improving maintainability and performance

## SYSTEMS AND ARCHITECTURE HIGHLIGHTS

- Designed multi-system Laravel architecture supporting financial workflows, audit tracking, and reporting platforms
- Engineered database schemas and queries optimized for high-volume transactional processing
- Built secure and auditable workflows aligned with compliance and regulatory requirements

- Implemented deployment and operational processes across Linux-based production environments
- Established consistent development standards and architectural practices across multiple developers and codebases

### **QAT - Principal Software Engineer (Consultant, Client: Nebraska Medicine) | 2019-2023**

- Delivered enterprise Laravel platforms for Nebraska Medicine, later adopted hospital-wide as core operational systems
- Designed and built mission-critical financial and compliance systems handling high-volume workflows
- Led enterprise modernization initiatives converting legacy MS Access, desktop, and outdated web systems into responsive, scalable web platforms, improving usability, maintainability, and long-term supportability
- Acted as technical lead across cross-functional teams and business stakeholders
- Mentored engineers and guided architecture, implementation, and code quality practices
- Provisioned AWS-hosted Linux infrastructure and engineered full application stack
- Maintained hands-on ownership of critical system components while influencing broader architectural direction
- Partnered with project management to drive Agile delivery while remaining deeply involved in core development

### **AgData - Software Engineer III | 2018-2019**

- Engineered backend systems supporting enterprise rewards and loyalty platforms for clients generating \$1B+ annual revenue
- Owned core services, workflows, and data models driving revenue-critical operations
- Modernized legacy PHP systems into structured MVC-based architectures

Earlier Career - Principal and Lead Engineering Roles

### **Rev Up Software - Owner and Principal Software Engineer | 2013-2018**

- Delivered custom enterprise PHP systems across full lifecycle from architecture through production support

### **SMS Masterminds - Lead Senior Software Engineer | 2008-2013**

- Architected high-volume messaging platform processing millions of transactions daily
- Designed backend systems, data models, and carrier integrations

### **In-Touch Management Systems - Vice President, Software Development**

- Led development of enterprise messaging platforms supporting 40M+ users
- Served as senior technical authority across large-scale system design and deployments

### **Zapatec - Manager, Software Development**

- Led engineering teams delivering commercial web software products

## **EDUCATION**

Stony Brook University

B.S. Computer Science

B.S. Applied Mathematics and Statistics