Paul Rubin

Chief Software Architect

Roswell, GA · 770 643-3966 · paul@rubin.net · LinkedIn

I transform underperforming enterprises into profitable operations by converting strategic goals into tactical execution plans. I'm a practical software architect, creating order out of chaos across multiple industries, teams, divisions, countries and time zones by applying practical approaches firsthand, and a subject matter expert in crafting vertical market software for enterprise and commercial software firms. I lower costs and raise efficiency through hands-on problem-solving and sustainable processes that support long-term operational goals.

Key strengths

- Meeting tight deadlines
- Leading change management
- Designing and creating practical solutions
- Driving large-scale projects
- Accelerating performance growth
- Building high-performing teams
- Increasing product performance
- Planning comprehensive projects

Technical proficiencies

- **Languages:** Java, C#, C++, Perl, SQL, JavaScript, TypeScript, Python
- **AI and governance:** AI guardrails and governance, prompt contracting, AI-assisted refactoring, multi-agent orchestration, structured schema validation, RAG architecture
- **Services and middleware:** Microservices, REST, SOAP, Kubernetes, Docker, Kafka, ActiveMQ, JMS, Kibana, Jaeger, OpenID Connect, Keycloak
- **DevOps:** Jenkins, Bamboo, Git, SVN, Artifactory, Nexus, SonarQube, Helm, Kustomize, Flux, Terraform, Chef, New Relic, AppDynamics
- **Web and mobile:** React, Node.js, AngularJS, .NET, JSP, jQuery, HTML5, CSS3, AJAX, Grails
- **Databases and access:** MS SQL Server, Oracle, PostgreSQL, MySQL, Redis, Hazelcast, JDBC, JPA, Hibernate, Entity Framework

- **Architecture and frameworks:** Spring, Spring Integration, design patterns, UML, OOAD, event-driven architecture, high-throughput job orchestration

Industry experience

Warehousing, logistics, just-in-time inventory, revenue management, order processing and fulfillment, mortgages and loans, revolving credit, payment systems, interfaces to embedded systems, protocol conversion, mobile and web applications, human resources, environmental control systems, real-time data collection, airline operations, document and media management, group management, operations.

Professional experience

Toyota Automated Logistics, Kennesaw, GA (2021 – present)

Senior Software Architect – Warehouse Automation

2026 – present (US regional entity): Reassigned to the US regional entity following a strategic corporate consolidation of global platform operations. Tasked with absorbing regional prototype codebases and re-architecting them into scalable, production-grade enterprise software for order fulfillment and warehouse robotics. Pioneered AI-assisted engineering standards, establishing strict architectural guardrails, mandatory testing contracts and documentation specifications, to rapidly ingest, refactor and stabilize unfamiliar codebases without accumulating technical debt.

2021 – 2026 (global platform integration): Brought in to stabilize a complex global warehouse automation platform across distributed international teams. Took direct architectural leadership for key US enterprise accounts. Inherited a system running on 4 separate technology stacks and consolidated it into a single unified Java stack while restoring system health.

- **Technology stack consolidation:** Consolidated a multi-stack platform (4 distinct languages and frameworks across 10 teams) into a single, unified enterprise Java and Kubernetes platform.
- **Operational recovery:** Took direct responsibility for 2 major US accounts, bringing an order-fulfillment platform to 50% efficiency within 8 months and securing 25% of store shipment orders across 130 stores.
- **Configurable integration engine:** Built a dynamically configurable integration engine based on Spring Integration, allowing project teams to bridge warehouse robotics and host automation systems in a fraction of the time required for custom source code.
- **Guarded AI refactoring framework:** Established enterprise prompt-contracting guardrails, treating LLMs as high-capability execution engines that require strict architectural context, standardized documentation and mandatory test coverage, to ensure deterministic code quality when modernizing fragile prototypes.

Manhattan Associates, Atlanta, GA (2019 – 2021)

Principal Software Engineer – Transportation Logistics

Designed and developed configurable Java frameworks for invoicing and approvals for transportation services logistics billing. Created and launched microservice components to replace a GCP-based VM architecture.

- Reduced development cluster preparation time from 2 hours to 20 minutes, lowering costs and increasing developer productivity, by designing pooling options for cluster recycling, database restoration and efficient cluster assignment in a GCP ephemeral VM environment with 200 microservices.

Hexagon AB, Alpharetta, GA (2018 – 2019)

Senior Software Engineer

Hired to move a legacy gRPC platform hosted at Rackspace to an Azure-based REST platform that was 2 years behind schedule with a 1-year trouble ticket backlog. Restarted stalled development by designing and installing a CI/CD platform for the entire product line, with Git, Jenkins, Sonar, Nexus and Node.js and a complete automated test system in the pipeline.

- Created performance tests to determine where and why performance was bad. Increased performance 1000% while reducing code 75%, by rewriting as non-blocking code and building an automated test framework that generated 90% code coverage.
- Extended the testing framework to verify tickets and fixed the code to work correctly. Emptied nearly 50 backlog tickets in 2 weeks, processing 4-5 tickets daily.

GreenSky, LLC, Alpharetta, GA (2015 – 2018)

Lead Architect, Service Framework – Financial Services

Brought on by the VP of software and the chief information officer of a major financial services organization to resolve hourly production issues, with no documentation and minimal internal knowledge of its systems.

- Completely overhauled 6 out of 7 technology stacks, 3 months ahead of a 2-year deadline. Reduced production issues to less than once a month, with a domain-based approach for migrating capabilities while maintaining production.
- Designed and installed a lightweight microservice framework run by a 14-developer team, with training based on SOPs for health checks and log management in scalable containers.

Hewlett-Packard Corporation, Alpharetta, GA (2010 – 2015)

Senior Software Engineer

Tapped by the chief information officer to save multiple projects that were behind schedule. Researched code frameworks, OSS integration, build pipelines, automated testing and task and process management across many industries and technology stacks to assess needs and problem areas. Led development efforts moving from waterfall to Agile with a completely automated continuous integration regression testing environment. Improved regression and performance testing stability of enterprise request management systems by applying a data generator for QA automation.

- Reduced response times in order processing systems from 30+ seconds to under 2 seconds, eliminating hot fixes and deploying releases in under 2 hours. Created an automated build pipeline while managing database structures across 13 data centers and 6 time zones.
- Introduced automation for standardizing testing across multiple environments and browsers, with functional regression testing using reusable components. Grew test cases from 700+ to over 1,500, running in less than 4 hours.

The Rainmaker Group, Atlanta, GA (2006 – 2010)

Senior Software and Database Analyst – Revenue Management

Hired to update a legacy database and manage hosting facility application services. Moved a legacy application from Java to C++ and from Oracle to SQL Server to allow quick integration with new customers. Supported the ticketing system, and built automated systems and a data center for hosted customers.

- Delivered 4 interfaces to 4 different client systems in under 6 months with a configurable data mapping engine.
- Added millions of dollars of value to revenue management systems by synchronizing and importing multi-gigabyte data sets through flexible, high-performance interfaces between the software and customer host systems.

Lodgian Inc., Atlanta, GA (2002 – 2006)

Senior Client Server Architect – Hospitality Operations

Saved the company over $7M during my tenure by introducing automation to replace manual systems, using JSP application development, version control and automated regression and performance testing. Automated interfaces to benefits providers for over 8,000 employees, and automated systems and processes for 350 sales staff.

- Increased scalability from 30 users to 700 by redesigning and relaunching the intranet system.
- Decreased abuses and overspending with a purchasing system that managed and tracked $20M a year in hotel operating costs and supplies during renovation.

Earlier

- Consultant designing and building e-commerce web servers, 2001 – 2002
- E3 Corporation, Windows Architect and Unix Systems Architect, 1999 – 2001
- Consultant designing and building C++ database interface products, 1996 – 1999
- Colinear Systems, Director of Research and Development, 1994 – 1996
- Rothenburg Computer Systems, Director of Research and Development, 1990 – 1994