

Doug Ramirez

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Professional Summary

Experienced technology manager with a proven track record in architecting and delivering enterprise solutions and leveraging cloud platforms. Adept at driving innovation, with deep expertise in software architectures, design patterns, and industry-leading engineering practices. Passionate about mentoring and fostering growth within teams, and influencing cross-functional teams to deliver impactful, next-generation technology solutions.

Publications

- **Adopting OpenTelemetry** with Doug Ramirez, O11ycast, September 2023, <https://bit.ly/3WKsl10>
- **Standardization** with Doug Ramirez, Geeking Out Podcast, April 2024, <https://bit.ly/3A4ygFb>
- **Context Propagation in Distributed Tracing** with Doug Ramirez, OpenTelemetry OTel in Practice, September 2023, <https://bit.ly/3M9pbOI>
- **Using OpenTelemetry** at Uplight, OpenTelemetry End-User Q&A Series, March 2023, <https://bit.ly/4fm7vMN>

Experience

Principal Architect, Data Platform

Uplight, Boulder, CO

December 2021 – July 2024

- **Mentorship:** Mentored teams in implementing software architecture design patterns such as hexagonal architectures for microservices, enabling plug-and-play integration with hardware manufacturers and OEMs.
- **Increased Productivity:** Led the implementation of Backstage as a software catalog, enhancing visibility into Uplight's software assets and teams, enabling quick feature and architecture roadmap decisions.
- **Industry-leading Engineering Practices:** Established OpenTelemetry as a standard for Observability, significantly reducing time for resolving software bugs and performance issues. Shared best practices for achieving Observability with OpenTelemetry through podcasts.
- **Engineering Excellence:** Created a Service Delivery Maturity Model, defined metrics, and implemented measurement systems with Roadie Tech Insights, increasing the speed of product feature prioritization based on real data about service maturity and risk.
- **Data Platforms:** Democratized data within the Databricks Lakehouse and Google Cloud platforms by architecting capabilities to surface data via APIs and event-driven architectures, reducing API time-to-market from months to days.
- **API-First:** Shifted Product and Engineering culture towards declarative and configurable data platform capabilities via APIs and event-driven frameworks, creating a golden path for developers to surface data from our Data Platform.
- **API Development:** Partnered with Postman to implement API-first thinking, created feedback loops on API design, and reduced time from ideation to working code by utilizing the OpenAPI Specification and Postman's mocking capabilities. Guest speaker at Postman's COKO Connect conference in 2022.
- **Software Architecture:** Implemented an Architecture Guild and led campaigns to enhance the architecture characteristics of Deployability, Observability, and Testability across the Engineering organization.
- **Architecture Roadmaps:** Worked with the CTO and senior leadership to establish Engineering Technology Tenets, providing a north star for the engineering and architecture roadmaps.
- **Skills:** Python, Java, Postgres, Databricks, Backstage, Postman, Locust, OpenTelemetry

Head of Architecture

Tucows, Toronto, ON

December 2020 – November 2021

- **Team Organization:** Partnered with Engineering leadership to implement Team Topologies, optimizing team organization for accelerated workflows.
- **Team Building:** Established and launched Tucows' first Low-Code team, including:
 - Recruited and staffed a team of application developers and DevOps engineers.
 - Deployed a suite of Customer Experience tools on a new low-code platform.

- **Developer Platforms:** Directed the architecture and development of a Developer Platform to create a unified source of truth for the Engineering organization, encompassing skills, responsibilities, services, and software assets.
- **Developer Advocate:** Sponsored and led the automated provisioning of new endpoints and development of interactive API documentation.
- **Engineering Leadership:** Served on the Goals & Execution Steering Committee, providing leadership for setting and managing OKRs across the organization.
- **Skills:** Python, Retool, Postgres, MySQL, Backstage

Head of Shared Services

Tucows, Toronto, ON

May 2019 – November 2020

- **Data Engineering:** Established and launched a Data Engineering practice, including recruiting and building a team of data scientists, data engineers, and DevOps engineers.
- **Data Warehousing:** Replaced legacy data pipelines and data warehouse with a modern technology stack utilizing Apache Airflow and Snowflake, enabling enhanced business insights and decision-making.
- **Shared Services:** Designed and oversaw the development of new shared services that significantly boosted developer productivity, including:
 - Automated provisioning of endpoints for webhooks.
 - Developed REST and Kafka APIs for SMS messaging.
- **Skills:** Python, Kafka, Postgres, MySQL, Apache Airflow, Snowflake

Engineering Manager, Shared Services

Tucows, Toronto, ON

2017 – April 2019

- **Developer Productivity:** Led the development of an enhanced developer experience through containerization and pipeline automation, streamlining code deployment.
- **Payment Platforms:** Migrated payment processing systems from Worldpay to Stripe, reducing costs and significantly improving time-to-market.
- **GDPR:** Implemented new payment methods and security measures to comply with EU regulations for payment transactions.
- **Financial ERPs:** Architected and managed the engineering of a platform to automate reconciliation processes across sales, payments, disbursements, and deposits, handling millions of transactions across multiple business lines.
- **Skills:** Python, Kafka, Postgres, Cassandra, Sage Intacct, Stripe

Staff Software Engineer

Tucows, Toronto, ON

February 2015 – 2017

- **Systems Migration:** Automated the migration process for customer, product, and billing data from newly acquired ISPs to Tucows' platforms.
- **Microservices:** Designed and developed a suite of Python microservices for automated provisioning of products and services on GPON and active Ethernet networks across all Ting fiber markets.
- **Financial ERPs:** Developed and deployed rules-driven microservices for near real-time visibility into cash balances with vendors, enhancing cash flow optimization.

Director of Data Services

Blue Ridge InternetWorks, Charlottesville, VA

March 2008 – January 2015

- **Operations:** Directed operations for hosting and Internet service provider business units, including technical and customer support staff.
- **Business Management:** Managed vendor and customer relationships, including negotiating pricing, terms, and conditions.
- **Business Process Reengineering:** Implemented and managed processes and technologies for hosting and ISP services, including back-office systems for provisioning, billing, customer support, and asset management.

- **Salesforce Service Cloud:** Deployed Salesforce Service Cloud to support help desk and technical support functions, including Email-to-Case, Web-to-Case, Service Cloud Console, entitlements, SLAs, case escalation, case queues, case assignment rules, automated email notifications, and email templates.
- **Salesforce Sales Cloud:** Implemented Salesforce Sales Cloud for sales, marketing, and finance, including campaign management, lead and opportunity tracking, quote management, e-signatures, order and subscription management, automated invoicing, and payment processing.
- **Salesforce Customer Portal:** Implemented Salesforce Customer Portal, enabling external customers and vendors to submit technical support cases, view orders, invoices, and payments, and manage payment methods.
- **Backoffice Platforms:** Customized an Order to Billing application for order and subscription management, invoicing, payment processing, and dunning notifications.
- **Skills:** Salesforce, Force.com, Apex, Lightning, Java, C#, .NET, SQL Server

Applications Development Manager

NTELOS, Waynesboro, VA

2005 – 2008

- **Engineering Leadership:** Led software engineering teams for Wireline business applications development.
- **Engineering Management:** Enhanced the software development lifecycle for .NET developers, resulting in significant improvements in process efficiency.
- **Software Delivery:** Deployed Continuous Integration and Deployment pipelines for .NET development teams using, reducing deployment time from days to minutes.
- **Process Improvement:** Implemented performance and load testing processes and tools for .NET development teams to ensure compliance with non-functional requirements.
- **Skills:** C#, .NET, IIS, SQL Server, Team Foundation Server, MKS, CruiseControl

Director of Software Engineering

Musictoday, Charlottesville, VA

2003– 2005

- **Engineering Leadership:** Led cross-functional teams in developing Musictoday's merchandise e-commerce platforms and systems integrations.
- **Software Architecture:** Defined software architectures for B2C and B2B e-commerce platforms, and integrations with CRM and financial ERP.
- **E-commerce:** Launched Musictoday's first digital download product, which created new revenue streams.
- **Business Process Reengineering:** Implemented shipping cost optimizations, resulting in reduced expenses across the major shipping carriers.
- **Skills:** Microsoft COM+, .NET, IIS, SQL Server, Great Plains Dynamics

CTO and Founding Principal

Dominion Digital, Richmond, VA

1997– 2003

- **Entrepreneur:** Co-founder of a technology consulting firm. Provided executive leadership, technical guidance, business development, sales, fiduciary, and legal duties.
- **Engineering Management:** Recruited, hired, and mentored employees and contractors, developing strategies for talent retention and employee morale.
- **Technology Leader:** Received accolades such as Greater Richmond Technology Council Finalist for IT Builders and Ernst and Young Entrepreneur of the Year.
- **Consultative Trusted Advisor:** Architected technology platforms, managed requirements, and led high-impact projects across education, financial services, entertainment, and legal publishing.
- **Skills:** Java, J2EE, BEA WebLogic, Oracle, Microsoft IIS, COM+, SQL Server, Great Plains

Manager of Software Development and Commercial Quality

GE Fanuc Automation, Charlottesville, VA

1990 – 1997

- **Engineering Management:** Consistently advanced to roles of greater responsibility, culminating as Manager of Software Development and Commercial Quality.

- **Technical Leadership:** Provided subject matter expertise, technical leadership, and architectural guidance for the migration of legacy systems to SAP ERP.
- **Rules-engines:** Created GE Fanuc's first rules-engine and client/server application to support new \$30MM product line.
- **Data Warehouses:** Created GE Fanuc's first data warehouse.
- **Skills:** COBOL, C, C++, ABAP, UNIX, Oracle, Ingres, SAP, Six Sigma Black Belt

Awards and Certifications

- Greater Richmond Technology Council Finalist for IT Builders, 2002
- Virginia Piedmont Technology Council Community Service Award, 2002
- Ernst and Young Entrepreneur of the Year, 2001
- Six Sigma Certified Black Belt, 1996

Education

Bachelor of Business Administration in Computer Information Systems
James Madison University, Harrisonburg, VA

Volunteer Experience

Ski Patroller, National Ski Patrol
Wintergreen Resort, Wintergreen, VA
2006 – Present

- Provided emergency medical care and rescue services on the slopes, demonstrating strong problem-solving and decision-making skills in high-pressure situations.