Ryan J. Rickerts

PRINCIPAL SYSTEMS ARCHITECT |
GEOSPATIAL & DISTRIBUTED DATA SYSTEMS

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SKILLS

// PROFESSIONAL

APIs & Web Services

Database Design

Spatial Data Analysis

Cloud Computing

Team Leadership

Architecture Planning

DevOps Modernization

CI/CD Pipelines

// TECHNICAL

Python (GeoPandas, OSMnx, Shapely) / NodeJS / TypeScript

SQL (PostgreSQL / PostGIS, MySQL, MSSQL) & NoSQL (DynamoDB, DocumentDB, MongoDB)

Kubernetes (EKS) / Docker / Terraform / AWS CloudFormation

Event Streaming (Kinesis) / GraphQL / REST / Observability (Elastic, Datadog, New Relic)

Enterprise IAM (Okta, Auth0, OAuth 2.1) / GitLab / GitHub

EDUCATION

GRADUATE CERTIFICATE
Geographic Information Science (GGIS)
University of Illinois at Urbana-Champaign
Completed Nov 2026
Emphasis on CyberGIS & Spatial Data Engineering

OBJECTIVE

Principal Systems Architect and Geospatial Data Engineer with 20+ years of experience designing fault-tolerant, high-throughput distributed platforms, real-time data fusion pipelines, and secure cloud infrastructure. My history combines a Master of Computer Science (Data Science) and a Graduate Certificate in Geographic Information Science (GGIS) from UIUC with deep production mastery across many languages, data stores, and systems constraints. I have hands-on experience managing production deployments in Kubernetes with Terraform on AWS. Proven track record leading small teams in decoupling legacy monoliths, ingesting multi-source streaming events with zero tolerance for data loss, and delivering mission-critical software platforms in fast-moving, high-consequence environments.

EXPERIENCE

PRINCIPAL ENGINEER | AFFILIATE TECHNOLOGY
Jan 2024 – Nov 2026
REMAX, LLC — Denver, CO (fully remote)

Re-architected and shipped an enterprise-wide, real-time streaming data ingestion and routing platform (leading 3 engineers and 1 QA), unifying dozens of fragmented upstream sources and downstream destinations with zero data loss and embedded BI telemetry.
Architected and delivered SkyView (remax.net) and its NestJS data aggregation layer, leading an AI-accelerated 5-engineer squad and implementing enterprise Okta AuthN/AuthZ (multi-tenant RBAC & strict data isolation) for users across 100+ countries.
Spearheaded zero-downtime, zero-password-loss migration of hundreds of thousands of remax.ca consumer identities from legacy stores into Auth0, preserving full cryptographic credential continuity.
Led SRE and Kubernetes cluster tuning across high-traffic flagship properties (remax.com, remax.ca), standardizing distributed logging, observability metrics, and container resource resilience.
Deconstructed a legacy enterprise AMS/billing monolith (Personify360 / MSSQL stored procedures and triggers), designing an event-driven shadow reconciliation architecture to eliminate seven-figure SaaS overhead.

SR. SOFTWARE ENGINEER | API BACKEND TEAM LEAD
Aug 2021 – Oct 2023
Sportradar U.S. Sports Media — Minneapolis, MN (fully remote)

Helped technically lead a squad launching an entire platform replacement of a critical and heavily subscribed API Gateway for a massive real-time data service using IaC and the AWS SDK along with a web-based UI for customers to manage their own API keys.
Prototyped & implemented a full custom replacement of Basic Auth in a suite of back-end applications with OAuth 2.1 standard for SSO using AWS Cognito and Azure AD.
Reached a proficiency-level with our production architecture built on Kubernetes such that I could handle periodic weeklong, 24/7 on-call shifts within 4 months of my hire date.
Quickly oriented myself in multiple legacy applications, each reliant on a large landscape of complex microservices to make rapid contributions for bug fixes & feature requests.
Immediately tackled security-related initiatives that required engineering-led motivation and discipline to find & mitigate vulnerabilities in open-source libraries.

MASTER'S DEGREE
Computer Science
University of Illinois at Urbana-Champaign
August 2021
Emphasis on Data Science

BACHELOR'S DEGREE
Math/Computer Science
Western Washington University
Bellingham, WA
June 2005
Math Fellow (high level tutor)
Double Major in Engineering

COMMUNITY INVOLVEMENT

CASCADE CROSS SERIES
Founder/Director
Race organizing & promoting
Bellingham, WA: 2007-2018

WWU CYCLING TEAM
Founder/Director
Div. II national champions
Bellingham, WA: 2003-2005

MT BAKER SKI AREA
Volunteer Events Crew
Glacier, WA: 2011-2016

WHATCOM EVENTS
Treasurer & Race Leg Chair
Bellingham, WA: 2018-2019

REFERENCES

CHRIS TUMMARELLO
Engineering Director
Real REMAX Group
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NANDU PADMANABHAN
Engineering Director
Real REMAX Group
971.506.7980

DEREK BOIKO-WEYRAUCH
Engineering Squad Leader
Sportradar US Sports Media
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CTO | SOFTWARE SYSTEMS ARCHITECT *Oct 2020 – May 2021*
Pairadime, Inc. — Globally Distributed

Played a pivotal role in sourcing, creating, and onboarding all technology needs for a startup with a niche concept in the real estate space.
Managed IT onboarding and provided tech resources for 12 staff members.
Introduced data processing automation using TypeForm and Google Docs SDKs via AWS Lambda functions to provide workflows for connecting agents with customers.
Guided a team of two React developers on building out a detailed specification of a legal document generator and provided back-end architecture to handle data persistence.
Built a custom browser-based home affordability calculator in JavaScript and JQuery.
Helped pitch our company vision to several seed investors by communicating the long-term product roadmap.

SR. SOFTWARE ENGINEER *Feb 2008 – July 2020*
Saturna Capital Inc. — Bellingham, WA

Championed a major overhaul of a monolithic, legacy enterprise application by breaking out functional components into a modern stack using NestJS, TypeScript, and GraphQL.
Designed & implemented an async database synchronization procedure to push/pull customer data from a legacy DB into a SQL-backed web application stack in real-time.
Built and upgraded complicated reporting and analysis modules for investment portfolio managers based on strict logic in a tightly regulated environment.
Preserved data accuracy and software reliability in a highly sensitive context—people's life savings—and always put the customer experience first.
Wrote extensive SQL views and exposed REST APIs for the customer account maintenance portal built in a popular web application framework.
Performed analysis on large datasets in both relational and schemaless databases to ensure quality and normalization of key customer account data for monthly statements.

JR. WEB DEVELOPER *Sept 2006 – Feb 2008*
Socrates Group Consultancy (FKA DeWaard & Jones) — Bellingham, WA

Maintained the integrity of a custom CMS framework shared among all clients, as the only employee dedicated to the quality level of a shared codebase.
Built out a complicated fleet management web application for a crane company using C#, ASP.NET, and SQL Server.
Customized an open-source Ruby on Rails web app to manage & display live results for a series of bicycle races with hundreds of unique participants and categories of riders.
Pair programmed with several bright developers to learn best practices in object-oriented languages and normalized relational database design.

PROGRAMMER *June 2004 – Aug 2006*
Engineering Design Automation — Bellingham, WA

Built an automated generator of SolidWorks 3D (CAD) drawings using VB.NET driven by inputs from Excel workbooks.
Created accurate engineering models of real-world products then programmatically scaled them based on flexible parameters.

APPLIED GEOSPATIAL & DATA SCIENCE PROJECTS

EV Charging Infrastructure Spatial Optimization (Python, GeoPandas, OSMnx, Google Maps API): Built spatial network and statistical optimization models to identify optimal geographic placement for regional EV charging corridors (2026).
Distributed Edge IoT & Telemetry Fusion (UIUC Research): Advised undergraduate team on the development of a virtual IoT gaming platform run on Docker and AWS (2021).