

# Ryan J. Rickerts

SR. SOFTWARE ENGINEER / DATA SCIENTIST

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## SKILLS

### // PROFESSIONAL

APIs & Web Services

Database Design

Data Analysis

Cloud Computing

Team Leadership

Architecture Planning

DevOps Modernization

CI/CD Pipelines

### // TECHNICAL

NodeJS / TypeScript / JavaScript

SQL (MySQL/Postgres) and  
NoSQL (Mongo/DocumentDB)

GraphQL / REST / SOAP

Ruby on Rails / Python

JS / HTML / CSS

Serverless / AWS  
CloudFormation

Docker / Git / Github / Gitlab

## EDUCATION

### 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*

## SUMMARY

Two decades of experience in various aspects of full-stack application development—from web apps to database & API design to server maintenance & middleware to open-source dependency management to serverless architecture—has allowed me to bring superior software experiences to users as well as reliability and maintainability to organizations who bear the cost of outages and long-term upgrade cycles.

I possess a unique ability to envision complex and abstract system design, see the best path forward—whether a legacy system upgrade or a brand new architecture plan—and communicate that plan to a team of developers as well as management & stakeholders.

Having worked in a diverse range of programming languages & development frameworks, I am able to recognize common patterns and implement long-term solutions quickly, as well as troubleshoot issues, collaborate with existing culture, cross-train new developers, and help mentor junior talent on best practices for software development and system design.

I am also passionate about the potential we gain as a society from computing power including quantum processors, distributed & cloud computing, machine learning & computer vision, and strong cryptography. I look forward to decades more of professional growth & learning.

## EXPERIENCE

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

**Helped 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. Built with TypeScript, Node.js, Apollo GraphQL, React, Lambdas and DocumentDB.

**Prototyped & implemented** a full custom replacement of Basic Auth with OAuth 2.1 standard for SSO using AWS Cognito and Azure AD in a suite of back-end applications.

**Quickly oriented** myself in multiple legacy applications, each reliant on a large landscape of microservices including open-source based web servers, message brokers, cloud databases, caching layers, and CI/CD deployment pipelines to make rapid contributions.

**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.

**Collaborated across teams** using Jira for agile sprint planning and weaved myself into their workflows for planning release timelines across dozens of products, markets, and stacks while working 100% remotely and two time zones away from our head office.

**Immediately tackled** security-related initiatives that required engineering-led motivation and discipline to find & mitigate vulnerabilities in open-source libraries and place the company in a stronger position in our modern high-risk cybersecurity landscape.

**CTO | SOFTWARE SYSTEMS ARCHITECT** *Oct 2020 – May 2021*  
Pairadime, Inc. — Globally Distributed

**Served in the role** of sourcing, creating, and onboarding all technology needs for a brand new startup with a niche concept in the real estate space.

## 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

### BELLINGHAM GREENWAYS

Mayor's Advisory Committee  
Bellingham, WA: 2014

### MT BAKER SKI AREA

Volunteer Events Crew  
Glacier, WA: 2011-2016

### WHATCOM EVENTS

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

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## REFERENCES

### DEREK BOIKO-WEYRAUCH

Engineering Squad Leader  
Sportradar US Sports Media  
206.354.1725  
d.boiko@sportradar.com

### JOE HOPPIS

Chief Executive Officer  
Pairadime, Inc.  
360.820.1777  
joe.hoppis@pairadime.com

### CHRIS NORMAN

Sr. Software Engineer  
Saturna Capital Corp.  
360.393.9005  
tcn@saturna.com

**Coordinated IT onboarding** and provided tech resources for 12 staff members.

**Managed a WordPress** installation supporting 3 contributors (authors/designers), optimizing assets for SEO rankings while ensuring high availability, reliability & site quality.

**Introduced quick 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 engineering 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 customer datasets in both relational databases and NoSQL (MongoDB) to ensure quality and normalization of key items like addresses, statements, account balances, transactions, etc.

### INDEPENDENT WEB DEVELOPER

*June 2006 – June 2012*

Rocket Designs — Bellingham, WA

**Provided web design** & development services for community projects and small businesses.

**Customized an open-source** Ruby on Rails application to manage and display dynamic web-based results for a series of bicycle races with 300 unique participants and 10 categories of riders.

**Learned industry grade graphic design** programs such as Photoshop & Illustrator and provided vector art services for custom logos.

### JR. WEB DEVELOPER

*Sept 2006 – Feb 2008*

Socrates Group Consultancy (FKA DeWaard & Jones) — Bellingham, WA

**Maintained the quality** of a shared codebase and CMS framework shared among all clients as the only employee not on contractor billable hours.

**Built out a complicated** fleet management web application for a crane company using C#, ASP.NET, and SQL Server.

**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.

**Managed a project** for a new client seeking rapid prototyping of new ASIC designs based on their customer demand.