

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

SQL (MySQL/Postgres) and
NoSQL (MongoDB)

GraphQL / REST / SOAP

Ruby on Rails / Python

JS / HTML / CSS

C# / ASP.NET

Docker / 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

A combined 15 years of experience in various aspects of full-stack application development—from dynamically generated web content to database & API design to server maintenance & middleware—has allowed me to bring superior browser-based 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 and development frameworks, I am able to recognize common patterns and implement best practices quickly, as well as collaborate with existing culture and document the work of others.

EXPERIENCE

ADVISOR | API BACKEND TEAM LEAD

June 2021 – current

IoT Research Project, UIUC — Globally Distributed

Helping a team of undergraduate students prepare a full-stack software application for its first production deployment with a limited budget and highly constrained architecture requirements (i.e. only on University of Illinois infrastructure). It emulates Arduino-based circuits and allows IoT students to deploy them in a virtual reality (VR) world simulation.

- Quickly learned a complicated stack with many interrelated services: TypeScript/REST/MongoDB, Python, C++, Docker, Unity VR, SocketIO, and more.
- Immediately brought actionable ideas for streamlining & stabilizing the architecture, simplifying deployment, and optimizing use of Docker containers.
- Helping coordinate & coach a team of 10 volunteers with diverse backgrounds and experience levels to make their first contributions to the project.
- Preparing a detailed research paper describing the project for grant writing and/or conference presentations.

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.

- 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: one from TypeForm input to Google Docs output using APIs via AWS Lambda functions, and several data pipeline workflows in HubSpot for connecting customers to realtors.

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

REFERENCES

MATTHEW CAESAR

Associate Professor
Univ. of Illinois at UC
847.323.2968
caesar@illinois.edu

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
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EXPERIENCE (continued)

- Guided a team of two React developers on building out a detailed specification of our first app experience - a legal document generator - and provided back-end engineering to handle data persistence.
- Built a custom browser-based home affordability calculator in JS 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 modern microservices.
- Designed a database synchronization procedure from scratch to push/pull a subset of customer data onto a MySQL-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 Drupal.
- Performed analysis on massive 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

- As the only employee not on contractor billable hours, maintained the quality of a shared codebase and CMS framework shared among all clients.
- Built out a complicated fleet management web application for a crane company using C#, ASP.NET, and SQL Server.
- Paired with several bright developers to learn best practices in object-oriented programming and non-normalized relational database design.

PROGRAMMER

June 2004 – Aug 2006

Engineering Design Automation — Bellingham, WA

- Automated generation 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.