

JOEL DOUGLASS

Principle Software Developer

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I am a true full-stack developer with about 20 years in software and web development. I'm comfortable in both front-end and back-end teams, whether it be working on a responsive React.js app, designing a distributed software system, writing complex database queries or even debugging an Ubuntu server. A pragmatist at heart, I try to approach every project with a fresh perspective by carefully considering core requirements and constraints. I've worked with a diverse set of languages and frameworks, but believe it is important to use the right tool for the job. An opportunity to learn something new is always a plus!

EXPERIENCE HIGHLIGHTS

User Interface

- Building and maintaining large **React.js** web UIs
- Prototyping, designing and building custom data visualizations with **D3.js** (SVG & canvas), **Three.js** (WebGL) and others

Back-end

- Designing extensible, versioned APIs with **OpenAPI** and **gRPC**
- Multitier architecture design for back-end systems in **C#/.NET**, **Java**, **Node.js** (Javascript & Typescript), **Python** and others
- Database design and implementation w/ **PostgreSQL**, **SQL Server**, **MongoDB** and others
- Document and content search w/ **Elasticsearch**, **Solr**, and others
- Distributed, scalable system design with microservices, **RabbitMQ**, **Redis**

Infrastructure

- Environment bootstrapping and deployment with **Kubernetes** and **Helm**
- Multiple years experience with each of the three major cloud providers: **AWS**, **Google Cloud**, and **Azure**
- Infrastructure management & automation with **Terraform**

SDLC and Process

- Creating scalable/reusable CI/CD pipelines with **Jenkins** as well as **GitHub Actions** for repeatable build and unit/integration/system test verification
- Designing and implementing end-to-end developer workflow, integrating **Jira**, CI/CD build pipelines, and GitHub PR checks
- Putting in place promotion and release processes for QA, User Acceptance and Continuous Delivery

WORK & EDUCATION HISTORY

Principal Software Engineer Jan. 2022-Present Quickening Investments (Blockchain startup/fund)

- Lead design, architecture, development and deployment of a suite of realtime trading tools for algorithmic market monitoring, trade execution and R&D
- Prototyped, designed and built a clean, *fast* integrated UI with **React.js** and **MUI**
- Developed a set of back-end services with **Node.js/Typescript** to power the full suite of tools
- Deployed and managed tools on AWS using cloud services (**EC2**, **Elastic Beanstalk**, **RDS**, **CloudAMQP**. Configured monitoring and alerts with **AWS CloudWatch**)
- Worked with leadership and users to prioritize, research, and groom new product features

Principal Software Eng., SAAS Team 2019-Jan. 2022 Tamr · Cambridge, MA

- Designed and documented parts of the core SAAS services framework, enabling rapid creation of new microservices with shared patterns and workflows
- Defined and implemented dev workflow for the full lifecycle of product features, including:
 - **Jira** automation to link commits with dev tasks and product feature tickets
 - **GitHub** PR workflow including critical code review, build and testing checks
 - **Jenkins** CI pipelines for build, integration testing and deployment
 - **Kubernetes/Helm** charts and configuration for fast cross-environment deployment
 - Continuous Delivery of features through lower envi-

ronments and finally to production

- All templated and easily applicable to new services
- Implemented several core services using the above framework, including Security and Search/Indexing
- Prototyped and implemented user-facing UIs with **React.js**

Principal Developer, Data Vis. Practice Lead 2013-2019
Velir · Somerville, MA

- Full-stack implementation of large-scale data applications including complex UI, back-end & database
- Design and development of fully custom rich data visualizations
- Consulted on company strategy for data visualization and communication projects
- Evaluated emerging tools, languages, and frameworks
- Designed and documented practice area workflows and processes
- Contributed technology/system proposals and detailed estimates to business development teams

Senior Web Developer

2008-13

Velir · Somerville, MA

- Led project development teams by assigning tasks and tracking progress
- Worked with clients, analysts and designers to turn designs and requirements into functioning web applications
- Designed custom web applications built on the Sitecore CMS and other platforms
- Estimated new project and enhancement work
- Maintained legacy systems built on ColdFusion, Classic ASP and Perl

Senior Systems Engineer

2003-06

General Dynamics, C4 Systems · Needham, MA

- Designed, developed, and executed a full test suite for custom Network Interface (NIC) hardware
- Held a U.S. DoD SECRET security clearance

B.S. Computer and Systems Engineering

1999-03

Rensselaer Polytechnic Institute · Troy, NY

- Summa Cum Laude