

# RYAN MULLIN

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Document source code available on [Github](#)

## EXPERIENCE

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### **Apptio, an IBM Company**

*Software Development Engineer II*

May 2019 - Present

*Bellevue, WA*

- Navigated and delivered valuable features in a 1.5 million line Java codebase alongside developing small greenfield microservices
- Optimized complex matrix and graph calculations for customer data uploads and reporting using data dependency analysis, JVM fine tuning, and concurrency optimization
- Solved difficult data consistency issues, race conditions and deadlocks in a highly parallelized, distributed environment
- Managed infrastructure for internal and customer facing services in AWS using infrastructure as code frameworks such as CDK and Terraform
- Built CI/CD pipelines, testing and Kubernetes deployment infrastructure for multiple projects using Github Actions and ArgoCD
- Developed scalable systems leveraging a range of tools including AWS ApiGateway, Kinesis Data Streams, Lambda, Athena, and DynamoDB.
- Designed and implemented services to ingest millions of rows of data of system performance analytics and customer usage data used to fine tune compute time, prune uploaded data, and provide actionable metrics for customers.
- Introduced the company to modern language practices and technology stacks, including writing a small internal log deduplication service in Rust, and educating developers on functional programming techniques in Java including monadic Stream and Optional operations.

### **WSU Tree Fruit Research Center**

*Hardware/Software developer*

June 2017 - August 2018

*Wenatchee, WA*

- Designed and developed field data loggers to collect ambient and object light and temperature metrics for apple orchards with remote upload capabilities over 3G.
- Prototyped using Arduino and Raspberry Pi systems
- Developed custom hardware drivers for GPIO based modules using C/C++
- Leveraged OpenCL image data processing to do cross section scans of crops to test for contamination and rot for a published university thesis

## EDUCATION

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### **Washington State University**

B.S. in Computer Science

3.8 GPA

*December 2019*

## TECHNICAL STRENGTHS

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### **Programming Languages**

C, C++, C#, F#, Java, Javascript, Typescript, Kotlin, Python, Rust, Haskell, Bash, SQL, Lua

### **Frameworks**

CDK, Terraform, React, Material UI, Dropwizard, GWT, Hibernate, JUnit, PyTest, LocalStack

### **AWS Technologies**

Lambda, EC2, RDS, DynamoDB, Step Functions, Api Gateway, Kinesis Datas-tream, S3, Athena, DocumentDB

### **Tools**

Git, Github, ArgoCD, TeamCity, Kubernetes, Docker