RYAN MULLIN

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Document source code available on Github

EXPERIENCE

Apptio, an IBM Company
Software Development Engineer II

May 2019 - Present
Bellevue, WA

· Enhanced calculation performance for Apptio's flagship platform, managing billions in IT spend data for 1800+ companies.
· Delivered valuable features in a 1.5 million line monolith Java codebase, as well as greenfield distributed systems in Python, Go, and Rust.
· Optimized JVM memory allocations, utilized graph-based data dependency analysis, and improved parallel execution for large-scale IT spend reports.
· Solved difficult data consistency issues, race conditions and deadlocks in a highly parallelized, distributed environment.
· Used CDK and Terraform to manage infrastructure for internal and customer facing services in AWS.
· Built CI/CD pipelines for Kubernetes and AWS projects using Github Actions and ArgoCD.
· Leveraged AWS Step Functions, EC2, S3, RDS, Lambda, Athena, and DynamoDB to create scalable systems.
· Used Step Functions and Lambda to create our internal system for performance regression testing, used every release.
· Designed and implemented a service to ingest over 100M+ calculation analytics datapoints daily across our application fleet, used to optimize computations, prune customer data, and provide actionable insights for customers using the Calc Profiler UI.
· Passionate about language theory and its applications in software. Ran workshops on functional programming in modern Java, created developer guides for advanced features in various languages, and am currently leading the adoption of Rust into our team's tech stack.

WSU Tree Fruit Research Center
Hardware/Software developer

June 2017 - August 2018
Wenatchee, WA

· Designed and developed field data loggers to collect luminosity and temperature metrics for apple orchards with remote data upload over 3G.
· Developed custom hardware drivers for GPIO based modules using C/C++.
· Wrote image manipulation algorithms with OpenCV to analyze crop cross section scans, published in a university thesis.
· Our research team made the Cosmic Crisp apple.

EDUCATION

Washington State University
B.S. in Computer Science
3.8 GPA

December 2019

TECHNICAL STRENGTHS

Programming Languages	Java, Kotlin, Rust, Python, Haskell, C, C++, C#, F#, Javascript, Typescript, Bash, SQL, Lua
Frameworks	CDK, Terraform, React, Material UI, Dropwizard, GWT, Hibernate, JUnit, PyTest, LocalStack
AWS Technologies	Step Functions, EC2, RDS, DynamoDB, Lambda, Api Gateway, Kinesis Datastream, S3, Athena, DocumentDB
Tools	Kubernetes, Docker, ArgoCD, Github Enterprise, TeamCity