# Shaun Reed

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#### C | C++ | Bash | Linux | Rust | C# | Python | Docker | CMake | Git | GDB | Ansible | NGINX | UE5 | Unity | Valgrind | Heaptrack | Grafana | Go | Kubernetes | Qt | QML | OpenGL | ESP32 | CI/CD Pipelines (GitHub / GitLab)

## OBJECTIVE

Seeking a mid-level software engineering position to apply and grow my development skills. I am comfortable working on distributed teams and contributing to large codebases in a number of programming languages.

# WORK EXPERIENCE

### TileDB, Software Engineer

Cambridge, MA JUN 2022 - PRESENT

- → Designed and implemented the integration of WebP support into TileDB format, securing the company a new customer contract
- → Debugged and resolved out-of-memory errors for production REST servers, improving the reliability of our services for our customers
- → Reduced backend server thread counts from 35,000 to 3,000 without negatively impacting our SLOs, enabling onboarding of larger customer datasets
- → Add cloud support to TileDB core through adding serialization for C++ APIs and implementing corresponding endpoint handlers in Golang REST service using OpenAPI specifications
- → Debugged and resolved segmentation faults in production through investigation of core dumps with GDB to minimize service outages from failed customer queries on the impacted pod
- → Increased stability of REST service by introducing CI workflows for testing TileDB core changes against cloud catching several issues before releasing to production
- → Provide feedback and review for PRs using a range of programming languages in collaboration with a global team in various time zones and nationalities

## Integratouch, Operations Analyst

Akron, OH AUG 2018 - OCT 2019

- → Utilize tools such as Confluence and ServiceNow to evaluate and escalate issues for resolution by owning engineering teams across the SiriusXM organization
- → Organize and host WebEx calls with engineering teams for deployments or investigations to ensure services are reliable and available to customers at the end of scheduled maintenance windows
- → Troubleshoot employee account issues using AD and RSA Console

# PERSONAL PROJECTS

### Qtk

### github.com/shaunrd0/qtk

- → CI / CD packaging for a Qt Widget C++ application using CPack on Windows, Linux, and Mac
- → Implementing Qt Designer plugins to create custom widgets usable within designer
- → Creating CMake package for installing and locating a shared library on Windows, Linux, and Mac using find\_package
- → Loading 3D model data using Assimp and rendering using low-level OpenGL APIs
- ightarrow GLSL shaders for techniques such as specular, phong, normal mapping and cube mapping

## Knoats

knoats.com

- → Configurations managed with Ansible roles and playbooks
- → Machine is hardened and includes Fail2ban and OSSEC agents
- ightarrow Server utilizes unattended upgrades and custom email alerting

## Education

Kent State University North Canton, Ohio

- BS Computer Science MAY 2022