

Akbar Zafar

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Skills

Languages C, C++, Golang, Java, JavaScript, Python, SQL, TypeScript

Tools Angular, AWS, Docker, Kubernetes, Git, Linux, PostgreSQL, React, React Native

Work Experience

Arctic Wolf

Jan 2023 - April 2023

SOFTWARE ENGINEER INTERN | REACT(TYPESCRIPT), GOLANG, PYTHON

- Implemented end-to-end support for selection of new sensor options for a more tailored customer experience
- Enhanced team productivity by automating the customer onboarding process, eliminating manual intervention
- Improved test coverage by 80% through unit and integration testing, enhancing code quality and maintainability

BioRender

May 2022 - Aug 2022

INFRASTRUCTURE DEVELOPER INTERN | TYPESCRIPT, AWS

- Restructured the payments workflow by integrating the Stripe API enabling support for additional payment methods
- Migrated existing infrastructure to AWS by leveraging AWS CDK, saving \$14,000 USD annually in overhead expenses
- Enhanced application sustainability with EC2 security policies and data visualization dashboards for core services

SAP

Sept 2021 - Dec 2021

CLOUD DEVELOPER INTERN | PYTHON, GOLANG, AWS, KUBERNETES

- Implemented a customized Kubernetes management engine to execute pipelines over distributed clusters
- Restructured the main CI/CD pipeline from Jenkins to Argo Workflows by parallelizing independent scheduled jobs
- Repaired the database purging service by addressing key resource availability bugs improving product sustainability

Kaleidescape

Jan 2021 - Apr 2021

SOFTWARE ENGINEER INTERN | JAVA, JAVASCRIPT, FFMPEG, POSTGRESQL

- Leveraged FFMPEG to develop async tools providing image statistics of a specified frame in a real-time dashboard
- Optimized the transcoding pipeline by allowing shorter transcodes reducing operations team idle time by 99%
- Developed an end-to-end custom image-differencing algorithm and region selection in an analytical dashboard

University of Ottawa

May 2020 - Aug 2020

SOFTWARE DEVELOPER INTERN | JAVA, ANGULAR (TYPESCRIPT), POSTGRESQL

- Migrated Selenium tests to Protractor using page object methodologies improving test time by 60%
- Created a landing page customization feature to support white labeling increasing customer engagement
- Introduced a region dashboard utilizing a REST API allowing customers to manage their personal regions

Projects

VHDL Compiler | Java

- Created a compiler for the VHDL programming language featuring the interpreter and visitor design patterns

TrackTor | Kotlin

- A comprehensive Android app easing management for farmers with speech-to-text recording, offline functionality, analytics dashboard, multi-user collaboration, and progress tracking for streamlined farm management

Image Concatenator | C

- Employed the cURL library create an image concatenator application to pull and concatenate remote images in parallel using multiple threads and synchronized shared memory through mutexes

Genie Vision Tool | Python, OpenCV

- An AI-powered smart vision tool that processes live visual data to produce audio feedback empowering visually impaired individuals with enhanced perception of their surroundings.

Education

University of Waterloo

Waterloo, ON, Canada

BACHELORS IN COMPUTER ENGINEERING

Sept 2019 - Apr 2024

Relevant courses: Software design and architecture, Computer security, Compilers, Real-time operating systems, Systems programming and concurrency, Data structures and algorithms