Gurpreet Singh

GITHUB.COM/GDHUPER C#, Python, Rust, Go

Experience

Microsoft

Software Engineer II

August 2018- Present

Designed and implemented various services/tools to strengthen the security posture of Azure and Windows

- Implemented distributed tracing for a fuzzing platform using the <u>OpenTelemetry</u> model; improved platform observability and enhanced developer debugging experience through structured logging
- Re-architected an internal PKI service used for monitoring certificate transparency logs to a serverless
 model; streamlined release process through automation allowing for faster deployment; improved
 security posture and resiliency through integrating functional tests in the CI/CD pipeline
- Designed control plane for a no-code workflow platform for building an extensible user interface (web, CLI); allowed for iterative feedback loops and faster releases
- Developed static code analysis automation to flag credentials in source code in over 500+ critical services; successfully identified and fixed over 3000+ bugs

Proofpoint

February 2018- May 2018

Software Engineer (Intern)

Implemented UI features for a secure email client web application and improved code quality by automating tests

- Automated testing for a React web app using Jest and Enzyme; increasing code coverage by 65%
- Implemented a carousel in React with drag and drop feature for admin dashboard to enhance usability

Cisco System, Inc. June 2016 – Sept 2016

Software Engineer (Intern)

Improved code quality and uncovered performance issues by automating testing suites

- Developed a generic context builder for testing workflow tasks for Orchestration engine; reduced organization's testing workflow tasks by 50%
- Automated database inventory snapshot report validation by implementing test suites using Junit framework; reduced manual testing effort by 75%

Open-Source Contributions

For more contributions: github.com/gdhuper

microsoft/onefuzz: Rust, Python

Implemented multitenant authentication to support deployment in multitenant environments

dapr/cli: Go, Kubernetes, Helm

• Improved developer experience by implementing `dapr dashboard` cli command to automatically spin up and launch dapr-dashboard in Kubernetes cluster

<u>kubernetes-sigs/capz:</u> Extended data disk capabilities to support managed disk option <u>nushell</u>: **Rust**

• Extended nutshell's math operations to support product of numbers

dapr/rust-sdk: Rust, gRPC

Implemented convenient layer in rust-sdk to interact with dapr runtime using gRPC protocol

Azure-Samples/rust-cosmosdb: Rust, CosmosDB

Leadership & Skills

Technology

- · Languages: C#, Python, Rust, Go
- Cloud: Docker, Kubernetes, Helm, Azure (Functions, Container Instances, AKS, CosmosDB, AAD),
 Terraform, GCP App Engine, Azure Service Bus
- Databases: MySQL, MongoDB
- Other: Linux, Proxmox, PowerShell, React, Angular, REST, gRPC

Education

San Jose State University **B.S. Computer Science**Dean's Honor List – Magna Cum Laude

May 2018