Gurpreet Singh

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

Experience

Microsoft

August 2018- Present

Software Engineer II

Designed and implemented an ETL framework for cooking Visual Studio telemetry into actionable datasets

• Implemented a framework to cook raw telemetry using a config driven model allowing developers to quickly build data pipelines and pinpoint performance issues in Visual Studio

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
- 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

- Implemented a carousel in React with dynamic ordering capabilities allowing users to organize graphs based on their preferences
- Automated testing for a React web app using Jest and Enzyme; increasing code coverage by 65%

Cisco System, Inc. June 2016 – Sept 2016

Software Engineer (Intern)

Improved code quality and uncovered performance issues by automating testing suites

 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 multi-tenant authentication to support deployment in multi-tenant 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

kubernetes-sigs/capz: Go, Kubernetes

• Extended data disk capabilities to support managed disk option

nushell: Rust

Extended nutshell's math operations to support product of numbers

dapr/rust-sdk: Rust, gRPC, Protobuf

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

Leadership & Skills

Technology

- Languages: C#, Python, Rust, Go, TypeScript
- **Cloud**: Docker, Kubernetes, Helm, Azure (Functions, Container Instances, AKS, CosmosDB, AAD), Terraform, GCP App Engine, Azure Service Bus
- Databases: MySQL, MongoDB, AzureSQL Redis, PostgreSQL, RabbitMQ
- Other: Linux, Proxmox, PowerShell, React (Typescript), REST, gRPC, AWS Lambda, EC2, Sentry

Education

San Jose State University

B.S. Computer Science