MOHAMMED NAFEES

Developer & Opensource Enthusiast

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EXPERIENCE

NVIDIA Corporation
Python, CUDA, C++17

Compiler Verification Intern — Jan – Mar, Aug – Dec 2020

- **Designed and implemented a new framework** for a streamlined testing procedure of open source projects based on CUDA

- Worked closely with both open source project developers and CUDA developers to **fix critical memory bugs as well as C++ standard library bugs**

- **Increased CUDA testing capabilities by more than 1.2 million lines of code** by adding new projects to the test suite

Chapel Parallel Programming Language
LLVM, C++, Chapel

Google Summer of Code Intern — May 2019 – Aug 2019

- Worked on implementing LLVM Intermediate Representation intrinsics for **better machine code memory management** in compiled programs

- Implemented a **more streamlined code generation** when using the LLVM backend and hence decreased dependence on C code substantially

- Improvised on the LLVM debug information generation in the form of DWARF v3 debug information by implementing debug intrinsics for **better integration with GDB**

ecobee, Inc.
Go, Ansible, Terraform, Google Cloud, Kubernetes

Site Reliability Engineer Intern — Sep 2018 – Apr 2019

- **Pushed production code** to the ecobee SmartThermostat backend infrastructure **responsible for more than 1.3 million connected devices at a time**

- Created the automated server deployment tool written in Go that **reduced server deploy time from a couple of hours to less than an hour**

McAfee LLC
C#, Docker, Kubernetes, Azure, SQL

Sofware Development Intern — Jan 2018 – Apr 2018

- **Built the backend REST APIs for McAfee's new deployment system** for consumer software to handle concurrent requests

- **Created the automated testing framework** with browser automation using Headless Chrome

- Participated in the in-house hackathon called "GEEKapreneur" and **created a chat bot service that prevents cyber crime** using McAfee's extensive database on threats

PROJECTS & OPENSOURCE

wlp4-llvm | Compiler
C++17, LLVM

An LLVM frontend for the WLP4 language, a C++ subset that is taught at the University of Waterloo.

Chopper | CHIP-8 Emulator
Go, SDL 2

A CHIP-8 emulator written in Go with SDL 2 for the GUI.

lerminal | Learn to use the terminal
TypeScript, NodeJS

Lerminal is a cross-platform desktop application for beginners to learn to use a terminal.

vm | vim-like Text Editor
C++14, ncurses

vm is a terminal editor built using ncurses that supports some basic functionalities as vim.

SKILLS

Programming Languages
C++, Python, Go, TypeScript, Java, Chapel

Frameworks
LLVM, Qt, NodeJS, Spring, Swing

SRE
Ansible, SaltStack, Terraform, Docker, Kubernetes, Google Cloud, Azure, Zeit

Platforms
Linux, Windows, macOS, Android

AWARDS & ACHIEVEMENTS

Google Code-in
Winner: Was **ranked world #1**, in terms of number of programming tasks done, and the youngest in the world to win the contest

Mentor: Mentored high-school students and **introduced them to open-source** in the form of programming challenges and documentation contributions

Google Summer of Code
Completed all 3 phases of the programme successfully working for KDE, the German non-profit open source software organisation

AngelHack HACKcelerator World Finalist
Selected as **one of the top 22 teams** from around the world to pitch their Startup in front of Silicon Valley VCs

PennApps - Google's 3rd Best Android Things Hack
Built an IoT (Android Things) Hack to find study spaces on university campuses using Android Nearby

EDUCATION

Candidate for the **Bachelor of Computer Science** at the University of Waterloo. Class of 2021.
President's Scholarship of Distinction