Preetpal Kaur

Intro Statement

I am a C/C++ developer that likes to solve real world. From the last three years, I was a part of many engineering teams, most notably of: Haiku, Great Developers. Most of the time, I am using C++ to develop desktop applications, and using FreeCAD to make 3D design. In the same time, I am sharing my knowledge with others and contributing to open-source as a mentor in Google Code-in (Haiku organization). My main open-source project Unify Input preferences in the Haiku Operating System which was started by me as an intern in Outreachy and continued in the GSoC 2020.

Experience

2020 Haiku Organisation, GSoC Intern: Input Preferences - (C++).

Working on a GSoC project with Haiku (an open source Operating system). This project is purely related user interface, connectivity of the devices. This project aims to work with the server which is the core part of an Operating system responsible for input devices (mouse, touchpad, keyboard). Worked on the different configuration for each mouse when multiple mouses were attached to the computer. Added the 6th button to the mouse settings and added its functionality to set the DPI speed of the mouse. To make the application more attractive the icons for each device were also added.

2020 Google Cloud Plateform.

Completed the labs and challenges of Cloud Engineering Track and Data Science and Machine Learning Track which include:

- 1. Getting Started: Create and Manage Cloud Resources
- 2. Perform Foundational Infrastructure Tasks in Google Cloud
- 3. Setup and Configure a Cloud Environment in Google Cloud
- 4. Deploy and Manage Cloud Environments with Google Cloud
- 5. Build and Secure Networks in Google Cloud
- 6. Deploy to Kubernetes in Google Cloud
- 7. Perform Foundational Data, ML, and Al Tasks in Google Cloud
- 8. Insights from Data with BigQuery
- 9. Engineer Data in Google Cloud
- 10. Integrate with Machine Learning APIs
- 11. Explore Machine Learning Models with Explainable AI

2020 Student mentor in Google Code-in.

Google Code-in is an annual programming competition that allows pre-university students to complete tasks specified by various open-source organizations. During this period, I learned how to get work from student that donot know much about programming. My job is creating tasks, sub-divided epics into smaller tasks with enough description and reviewing their work.

2019 **Outreachy**.

My experience in Outreachy was excellent. I worked on the project (Input Preferences) in Haiku OS. I learned how the open-source organisation works and how we can contribute it. This really made me confident to work in large projects.

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Projects

2020 Haiku Organisation, GSoC Intern: Input Preferences - (C++) .

Working on a GSoC project with Haiku (an open source Operating system). This project is purely related user interface, connectivity of the devices. This project aims to work with the server which is the core part of an Operating system responsible for input devices (mouse, touchpad, keyboard). Worked on the different configuration for each mouse when multiple mouses were attached to the computer. Added the 6th button to the mouse settings and added its functionality to set the DPI speed of the mouse. To make the application more attractive the icons for each device were also added.

2019 Haiku Organisation, Outreachy Intern: Unify the input preferences (mouse, touchpad, keyboard, keymap) - (C++).

Working on a Outreachy project with Haiku (an open source Operating system). This project aims to easing up the settings of input devices process in the Haiku. For better user experience, the preferences are situated in the one main window to decrease the wastage of time.

2019 Project Flutter (Dart).

Created a simple cross platform calculator application using Flutter, an open source, powerful, hybrid mobile application framework by Google. Flutter is written Dart, therefore obtained great exposure to how to develop apps in Dart.

2018 FreeCAD - (Python).

Wrote Python scripts to generate 3D models and 2D drawings. Made a table, a concrete mixer drum and bishop model through Python programming.

2018 Python and Common Gateway Interface (CGI).

Used Common Gateway Interface (CGI) along with Python to execute Python programs on web browser. Created quiz program, table and the area program (which finds the area of circle, square). All these programs take user input through HTML forms and pass further to Python programs on server which return the results back to browser.

2018 **PyQt**.

Worked on PyQt which is used to make user interfaces, to develop a dead simple dialog box using Python.

Achievements

- 2020 **Google Summer of Code,** Student in Haiku...
- 2019 Outreachy Intern, Student in Haiku...
- 2019 **Google Code-In,** Mentor in Haiku.
- 2019 **Red Hat Academic award,** Nominated in the Red Hat Academic award (The Women in Open Source Award program was created and is sponsored by Red Hat to honor women who make important contributions to open source projects and communities, or those making innovative use of open source methodology.).

2019 **Member of google groups,** Great Developers.

Great Developers is the google group started by our college Dr. Hardeep singh Rai in which we work on the real life problems in the computer world. We work in a team and try to help the other developers problems and welcome new developers.

2018, 2019 Hactoberfest, Hacktoberfest participant...

Education

2017 - 2021 **B.Tech** *Computer Science and Engineering* Guru Nanak Dev Engineering College, Ludhiana, Punjab.

Skillset

Technologies I worked in: C/C++, CGI, shell scripting, WordPress, HTML, CSS, Python, Latex, UI/UX, FreeCAD, Java.

Tools: nano editor, vim, git, QtCreator, Sublime, Visual Studio Code.

OS: Linux, Haiku, MS Windows.

Language: English, Punjabi, Hindi.

Developer Experience: Using git for source management all my projects. Working between GitHub and Gerrit. Has confidence in enforcing code style guides for teams to help them perform better and faster. .