Zulaikha Zakiullah

"Zoo • lay • ka Za • kyoo • lah"

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Skills

Languages:	Python, C/C++, C#, Java, JavaScript	**Systems:**	Windows, Linux/Unix
Hardware:	Assembly, VHDL, Quartus, STM32F-	**Control:**	Jenkins, Git, GitHub
Frontend:	HTML5, CSS3, jQuery, Bootstrap	**Suites:**	JetBrains, Atlassian
Backend:	Node.js, .NET	**Tools**:	Pygame, PyQt, Tkinter, Swing, SDL

Experience

Test Automation Developer | Ford Motor Company — May 2020 - Aug 2020

- Created an automated job to run monthly using Python and Jenkins DSL to delete all unused workspaces in Jenkins machines, speeding up the testing pipeline
- Developed a command line tool with Python and Click to save developers' time by remotely controlling services on any Jenkins machine through SSH as opposed to using RDP
- Implemented the façade design pattern to improve readability and mask more complex components of existing software libraries behind a simpler API, allowing for easier and faster usage

Firmware Developer | Waterloo Formula Electric — Sep 2019 - Present

- Designed car dashboard using Python and PyQt to display current stats and warn driver of any errors occurring in the car by receiving CAN messages to self-update every 100 milliseconds
- Reduced clock cycles taken to perform CRC calculations by over 80% by implementing STM32 HAL library written in C to replace the software lookup table method, and tested on STM32 microcontroller
- Interfaced Python with PyQt to develop a graphical user interface (GUI) for car's charger controller unit (CCU) that takes in commands by user and displays charger status, to replace the existing buttons on the CCU

Projects

EZ-E | zzakiullah/EZ-E — Aug 2020

- Created a custom Discord bot using Node.js and the Discord.js module to help stay organized in school
- Configured the bot to send a reminder to users 15 minutes before scheduled meetings by parsing cron expressions translating to when the meetings are set to occur
- Utilized asynchronous tasks to track when users call bot commands

Super Smash Bros. | zzakiullah/Super-Smash-Bros — Jun 2018

- Designed a single player fighting game using Java and Swing that allows the user to fight up to three CPU's in different stages in a set amount of time
- Used object-oriented programming techniques such as classes and inheritance to structure game components such as character avatars and stages
- Developed simple CPU's that track and target the player by navigating onto platforms and attacking when in range

Super Mario Run | zzakiullah/Super-Mario-Run — Jan 2018

- Created a single player 2D endless side-scroller using Java and Swing where user avoids enemies, traverses through warp pipes, and collects coins to increase score
- Used a random number generator to control probability of enemies spawning after a set amount of time
- Devised in-game physics for collision detection using point geometry to determine object hit boxes

Education

University of Waterloo — (Expected) 2019 - 2024

Candidate for BASc in Electrical Engineering | **cGPA 3.91**