# Rizwan Khan

(732)-688-8469 | rizhkh@gmail.com | www.github.com/rizhkh | www.linkedin.com/in/rizhkh | www.rizhk.net

## WORK EXPERIENCE

### Sunbird Software - Software Engineer

September 2019 – August 2020

- Developed and optimized functional scripts, in-house testing tools and automated solutions for development team
- Deployed, containerized and created CI/CD using Jenkins to automate case production for various versions of product builds and data platform
- Developed new robust programming tasks, tests and scripts to execute automation functionality for newer build versions for the flagship product
- Maintained and ensured functionality of the product's data platform through continuous testing adhering strictly to automated testing
  using newly developed scripts and programs using Java, Python, Robot framework and various open source APIs for Jenkins
  integration
- Developed separate scripts using JavaScript and Python specifically for integrated testing tool to execute custom test cases on concurrency, load performance and virtually simulated user traffic for test performance issues on the flagship product
- Scripts developed in testing environment were executed and analyzed for service API setup for in-house servers and cloud
- Advanced scripting techniques using JavaScript and Python were used to analyze request and response times for the generated user load to gather performance data for Sunbird's product platform

## TRC Companies Inc. – Software Engineering Intern

May 2018 – August 2018

- Tasked with building a scalable solution for monitoring and processing data in system that helped company save time by 40
  percent by tracking files and logging time
- Developed and updated process flows, test and product databases implemented for MS CRM Dynamics by using SQL queries to input required data in the system records using JavaScript, Node.js, SQL and CRM

#### **EDUCATION**

**Rutgers University** 

New Brunswick, NJ

Master of Science – Computer Science Concentration: Machine Learning

September 2020 – May 2022

Bachelor of Science – Computer Science

September 2014 – January 2019

**Concentration: Software Engineering** 

#### **PROJECTS**

#### Maze Navigation - www.github.com/rizhkh/mazesearch

• Developed An artificially powered agent that can navigate a maze using autonomous factors. The self-navigating agents observes its surroundings in the maze, learns from its movements and utilizes minimal human input to solve the maze.

#### **Minesweeper – Al agent** - www.github.com/rizhkh/mswp

• Developed an autonomous AI agent capable of solving a game of Minesweeper using inference rules and constraints without using any human input for help. Designed a functional Minesweeper game for the AI agent to operate on.

#### Map Search - www.github.com/rizhkh/MapSearch

Map searching program to find an optimal route between two points on a given map

#### Image Processing - www.github.com/rizhkh/Classifier

 Developed a program to determine content of an image by utilizing Machine learning modules and by implementing a Classifying algorithm to help learn about data

## **RELEVANT SKILLS & EXPERIENCE**

Languages: Python, Java, C/C++

Tools & Frameworks: AWS, EC2 instances & RDS, Git, Jenkins, Node.js, Robot, Pytorch, Pandas, scikit-learn, Jupyter & Colab

## Relevant Academic & Personal Projects:

- Experience writing Machine Learning helper modules, algorithms, neural networks and applying algorithms to data
- Theoretical understanding of Machine and Deep learning. Currently working on applying techniques and algorithms using Pytorch
- Programmed and deployed projects using Springboot, node.js, XML, SQL, Data Network concepts (using TCP and UDP to write a
  bit torrent client using C and Python), JavaFX, Android's Gradle, Apache Tomcat, Selenium. More Programming Projects are present
  on Github

Work Authorization: U.S Citizen (No sponsorship required)