Taher Amlaki

Python Developer, Machine Learning Enthusiast

I have an extensive background in mathematics and interested in analytical problems. I am a self-taught Python developer with experience in creating small and mid sized applications. Also studying Machine Learning algorithms. I have recently started to document my learning in my personal blog under posts.

Experiences

Test Automation Engineer @Rabobank March 2020 - Presence

- Senior Test Automation Engineer: I user Robot framework (build over Python) to create test cases for front-end web application and backend Pega system of Rabobank's customer outreach program.

Automation Engineer Consultant @Adyen Sept. 2019 - Feb. 2020

- Created a tool based on Python to automatically gather execution reports from various external systems, matching and validating the results, downloading transactions receipts and collect them, with tkinter GUI, I call it TidyLogs. This has reduced 30% of test execution time.
- Developed a tool in Python to connect and control a robot and test execution server to perform tests on Point of Sales automatically. This tool is currently being used in Adyen and I am adding new features such as reporting and scheduling to it, and I am adding different types of interfaces for robots and terminals to it as well. I cannot share the

Technical Analyst @UL IMS June 2016 - Feb. 2020

- Tester: I prepare, execute, and issue analysis for official certifications of Point of Sales for global scheme such as MasterCard and Visa, and acquirer protocol C-TAP.
- Test Automation: to boost certification team's capability to deliver the most, I build custom tool, for test execution, and submission, by Python and Java.
- Customer Result Validation: I am creating a tool with Python to validate test results for electronic payments with image recognition and text processing capabilities.

Test Engineer Consultant @Rabobank Nov. 2016 - April 2019

- Software Testing: For Rabobank's cloud-based mobile payment application (RaboWallet), I tested web-services, database services, and front-end mobile application on Android. I learned from my team, implemented, and then expanded test automation of back-end services, by SoupUI and Postman. I created independent framework for testing front-end mobile application and backend web services using Java, Selenium, and Appium.
- Cloud-Based Payment Analyst (HCE solution): By using my EMV and MasterCard knowledge,

Researcher @University of Twente Feb. 2011 - April 2016

- Investigating new low-dimensional atomic structures like Graphene, Germanine, and MoS2 by performing first-principals calculations on their band structure in order to obtain their electronic properties. Then I constructed a phenomenological model based on Graphene's symmetries and fitted the free parameters into my computations. Then I used this model to predict conductivity of Graphene on several substrates.

Projects

Blog with Django - Code In Github

I created a blog for myself using Django framework and have pushed the in-sensitive part of it to a Github repository. The blog has profile section, and posts section which I add my articles on programming, machine learning, and test automation.

Text Summary REST Api with Flask - Code In Github

This is my first try to create REST Api with Flask. I decided to implement a Machine Learning Algorithm to create a summary of text received. There are two methods POST for sending the text or url and GET to check the process status and summary if it is ready.

SQLAlchemy, application in Test Automation - Code In Github

To get an overview of test cases scripted in Robot Framework and executing them, I created a web application with Flask and HTML+CSS+Bootstrap which search through the test suites directory, show them, let them to be selected, and then execute them, and also parallel execution is possible. During execution frontend (using Ajax) will get execution status as well.

Code Visualizer for Robot Framework - Code In Github

To understand code structure of my Robot Framework project I have created a visualization application using Robot Framework listener, python implementation for a tree structure, flask library, and d3.js for visualization on a browser. The result is a graph which shows hierarchy of the suite and links between keywords.

Test Automation With Web Application, Robot Framework And Flask - Code In Github

To get an overview of test cases scripted in Robot Framework and executing them, I created a web application with Flask and HTML+CSS+Bootstrap which search through the test suites directory, show them, let them to be selected, and then execute them, and also parallel execution is possible. During execution frontend (using Ajax) will get execution status as well.

Earth Orbit Game with Python Kivy - Code In Github

This is a simple game I created using Python and Kivy. You play as Sun and can control the position of Sun. Earth is pulled by Sun and the goal is to keep Earth in the screen as long as possible. If Earth gets too close to Sun it will pick up speed and then will go out of the screen quickly.

Technical Skills

Python - Programming
Developed log parser application with tkinter for UI. Parsing xml, html, and txt files and matching logs. Created a test execution manager application, to control test data server and a robot via rest api,. Also several personal projects listed at Projects section.

Java - Programming
Created a Test Automation application with TestNG and Java for mobile app and web services testing. Also used Java to learn about Object Oriented Programming for Head First Design Patterns by Freeman and Robson.

Flask - Web Development in Python
Creating Web Application for test automation.

REST Api development for Machine Learning Algorithms

Django - Web development framework
Learned web application development by following online tutorials on Django and created my personal blog for my articles and deployed it on a server on cloud.

C# - Programming
Contributing on project management tool developed internally within UL IMS.

Git and Github - Development tool
Using Git and Github for several years for business and personal applications. Also created a Github portfolio (check the Links section).

R - Data Science
Learned R from an online course and used it to solve exercises of Introduction to statistical learning by R (book).

HTML/CSS/Bootstrap - Web development
Learned the basics from an online course and applied them to creating my blog.

Robot Framework - Test Automation
As a Senior Test Automation Engineer I design and implement test automation projects. Beyond that I created parallel execution application and code visualizer for Robot Framework projects.

Education

PhD in Physics @University of Twente - Modeling Graphene-Substrate Interactions
My PhD project was focused on studying Graphene and graphene's like materials. Based on geometrical symmetries of graphene's atomic structure I created a phenomenological low energy band model. Using first-principals calculations I fitted the best values for free parameters, and predicted electronic band structure of graphene and graphene-like materials over various substrate. This can help with finding suitable substrate for novel materials which can be used in making future transistors.

MSc in Physics @Beheshti University - Thermal dependency of Graphene's conductivity

Bachelor in Physics @University of Tehran - Study of reference frames in curved space-time

Links

Github Portfolio - https://taheramlaki.github.io/

LinkedIn Profile - //www.linkedin.com/in/taheramlaki

Online Portfolio - https://www.taheramlaki.com/profile/resume/

Programming, Machine Learning, and Test Automation Articles - https://www.taheramlaki.com/blog/