



Taher Amlaki, PhD

Software Engineer

I have background in theoretical physics and am interested in programming and analytical problems. I am a self-taught Python developer with experience in creating small and mid sized applications.

## Programming Skills

### Python

- ✓ Over two years experience with creating test automation projects.
- ✓ Developed log parser application with tkinter to parse xml, html, and txt files and extract information.
- ✓ 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.
- ✓ Python tutorials in my blog to learn and share about programming.

### Java

- ✓ Learned Object Oriented Programming basics and patterns with Java.
- ✓ Created a Test Automation application with TestNG and Java for mobile app and web services testing.

## WebFrameworks Skills

### Django

- ✓ Created my blog using Django framework.
- ✓ Working on tutorials for Django ORM data models, and Rest framework for Resr Api creation with Django.

### Flask

- ✓ Flask web application for Robot Frmaework test automation project, project structure visualization and parallel execution of tests.
- ✓ Tutorials on createing Rest Api applications with ORM/ODM models for databases for text summary, test automation, market bascket analysis, ...

## DevOps Skills

### Docker and Docker-Compose

- ✓ Docker and Docker-compose tutorial with creating a Flask web application and MongoDB.
- ✓ Building and using Docker images+containers in Azure Kubernette cluster for running testing pipelines.

## Experiences



Senior Test Automation Engineer [@Rabobank](#) March 2020 - Presence

- ✓ Senior Test Automation Engineer: I design and develop automated testcases in Robot framework (RF: test automation framework built with Python) for front-end web application and backend Pega system of Rabobank's customer outreach program.
- ✓ Help junior testers to learn programming with RF.



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



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,



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.



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

### Python Coding Tutorials - [Code In Github](#)

This project is about creating tutorials for Python libraries that are used in real world applications. Examples are serialization/deserialization of data strucures using Marshmallow or JsonSchema libraries, logging module for large applications, and MongoDB, MongoEngine, and ODM in Python applications.

### Blog with Django - [Code In Github](#)

My blog is created using Django framework deployed on a server. I learned about Django project structure, ORM and data models, (class-based) views, forms, routings, and user logging implementation with Django.

### Text Summary REST Api with Flask - [Code In Github](#)

A Flask RestApi application to create text summary using LSA algorithm for natural language processing and multiprocessing. 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 store test execution results I used SQLAlchemy module to create data models based on ORM pattern. I integrated these data models in Python with Robot Framework keywords.

CI/CD Pipelines

- ✓ Creating test automation pipeline with Jenkins for regression tests for web services.
- ✓ Managing testing pipelines in Azure.

Other Skills

Git

- ✓ Using Git version control for several years for business and personal applications.
- ✓ Github for personal projects and tutorials.
- ✓ Bitbucket and Azure repos for business related applications in Rabobank.

DataBases

- ✓ Oracle Database: creating queries for testing backend services in Rabobank.
- ✓ SQLite: Python projects for data gathering from test logs, and also used for development version of my blog.
- ✓ PostgreSQL: used it as my blog's databases.
- ✓ MongoDB: created tutrotials on pymongo basics, and ODM data models and patterns with MongoEngine.

HTML/CSS/Bootstrap

- ✓ Learned the basics from an online course and applied them to creating my blog.

Robot Framework

- ✓ As a Senior Test Automation Engineer I design and implement test automation project.
- ✓ Created test automation web application for project visualization and execution.

Education

PhD in Physics @University of Twente

Modeling Graphene-Substrate Interactions

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

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.

Links

Blog - [taheramlaki.com/blog/](#)

LinkedIn Profile - [linkedin.com/in/taheramlaki](#)

Online Portfolio - [taheramlaki.com/profile/resume/](#)

Github Portfolio - [taheramlaki.github.io/](#)