Farnaz Towhidi . Jarvis Consulting

I am Farnaz, a technical consultant at Jarvis Consulting Group. I completed my master's and PhD in computer science at UTM University. My research demonstrated the vulnerability of graphical password authentication to dictionary attacks by aggregation of regions within an image that exhibit low-level properties in conjunction with their neighboring regions. The result of attacking with this dictionary revealed that hot-spot are the main security flaws in graphical passwords. The findings of my research have been elegantly captured in two book publications available on Amazon; Graphical Password An Alternative to Textual Password and Graphical User Authentication (GUA) Graphical Password Algorithms and Analysis."

Skills

Proficient: JavaScript, Java, React, Angular, Linux bash scripting, Node.js, MongoDB, SQL

Competent: REST APIs, Docker, Git, Html/CSS, Agile/Scrum

Familiar: OAuth, TestRail, Selenium, Jira, .Net

Jarvis Projects

Project source code: https://github.com/Jarvis-Consulting-Group/jarvis_data_eng-FarnazTowhidi

Cluster Monitor [GitHub]: The project will be use by Jarvis Linux Cluster administrator (LCA) to manage 10 server node that connect to each other. They want project to record hardware spec of each server, and real time resource usage, so the plan is to design one MVP for them. The project implements by bash script and postgresSql, Linux command line, docker and IDE. Manual testing done, by running the bash script and check the related tables to see if the data created properly.

RDBMS and SQL [GitHub]: Created SQL queries to retrieve data from multiple tables. A PostgreSQL instance using docker was utilized to load sample data and test the results of the queries. Git was used as version control for the project.

JDBC Apps [GitHub]: Developed proficiency in data access patterns and JDBC by performing data manipulation tasks on the hplussport PostgreSQL database. Utilized Dbeaver and Intellij Idea for database management, Docker for containerization, PostgreSQL and PSQL CLI tool for database creation and manipulation, JDBC for data access, and Maven for build automation.

Grep App [GitHub]: Similar to the egrep tool this project aims to read all the files in the provided directory and tries to search for the regex expression that has to be searched in the program. The project uses Java, Lambda, Steams and Regular expression for designing and attaining the outputs.

Twitter CRUD App [GitHub]: Created a Java CRUD application that uses Twitter's REST API v2 to create and manage tweets. The user can create tweets, or delete a list of tweets by ID, all from via CLI. The app sends requests to Twitter's API through HTTP requests in the form of JSON messages, authenticated with OAuth. The architecture used follows the MVC design pattern. The build system used was Maven, and deployment was done through Docker.

Highlighted Projects

McDonald's Application [GitHub]: Solo, 1 week project for DRY REST API of fully-functional styled inventory application. Technologies used, Express/Node and MongoDB, Python.

Chatterbox [GitHub]: Group of 4 developers creates a MERN stack application, a responsive single page application. Uploader with the use of AWS S3 buckets and the npm package, "aws-sdk". Technologies used, MongoDB, Express, React, Socket.io, Amazon Web Services.

Track Fit [GitHub]: Group of 5 developers creates a full crud application in 1 week, for recording the user's daily fitness log. Technologies used, HTML, CSS, Python, Django, PostreSQL.

War Card Game [GitHub]: Solo, 1 week project for the browser base game, using application state, manipulating DOM and includes shuffling and win/loss logic. Technologies used, HTML, CSS and JavaScript.

Professional Experiences

Technical Consultant, Jarvis (2023-present): Developed multiple software applications and worked on projects using Java, SQL, Linux Bash, Docker and more. Agile/Scrum was used to collaborate with team and produce minimum viable products. Git was utilized for version control on projects.

Quality Assurance, IBM ,Fredericton (2020-2020): Part of security intelligence team of 10 working on QRadar that ensured the testing algorithms and probability threat analysis was maintained at peak efficiency

Full Stack Developer, Canadian Institute of Cybersecurity, Fredericton (2019-2019): Designed and built website for International Conference on Privacy, Security and Trust,including information on events, workshops, organizers.

Full Stack Developer, Biossentials, Kuala Lumpur (2009-2014): Worked closely with a designer to create and deploy a new comprehensive layout that allowed the customers to easily connect with vital information. Improved the quality of company search engine optimization performance. Overhauled the entire structure of the website, create keywords contents, change the naming of files and folder, recommended weekly content, deleting flash and other technologies to gain it

Education

General Assembly (2022-2022), Software Engineering Immersive, Faculty of Computing - GPA: 3.9/4.0

Universiti Teknologi Malaysia (2010-2015), PHD of Computer Science, Faculty of Computing - This thesis creates a new method for dictionary of cued recall based graphical password by combination of top down and bottom visual attention. This approach leads to powerful automated dictionary attack that can guess up to 70% of some passwords.

Universiti Teknologi Malaysia (2008-2010), Master of Computer Science (Information Security), Faculty of Computing - GPA: 3.65/4.0 - This thesis is an Enhancement on Passface Graphical Password Authentication.

Miscellaneous

- Computer Hacking Forensics Investigator (CHFI), EC-Council
- Certified Ethical Hacker (CEH), EC-Council
- Cloud Core, IBM
- Design and User Experience (D&UX), IBM
- Introduction to Cloud, IBM
- Tech-ReEntry, IBM