Fatima Tayeb

🏠 fatimatayeb.com ✉ fatimataayeb@gmail.com in🔗 fatimataayeb

Education

University of Nottingham Autumn 2016- Spring 2020
B.Sc. (Hons) in Computer Science,
Relevant Courses: Programing Paradigms, Algorithms Correctness & Efficiency, Software Quality Assurance, Communication & Networks, Machine Learning, Computer Security, Operating Systems & Concurrency
- Attained Dean's Excellence Award twice for showcasing excellent academic performance and being in the top 10% in a batch of over 75 students.
- Elected as a Representative for over 315 students in the School of Computer Science for 2 consecutive years and working closely in the Student Council and Education Network to enhance the students' learning experience.

Carnegie Mellon University, Doha, Qatar. Fall 2015
B.S Computer Science,
Relevant Courses: Fundamentals of Programming and Computer Science, Freshman Immigration Course, Differential & Integral Calculus, Concepts in Mathematics, Reading & Writing in Academic Context
- Active member of The Planetary Society helped organize the Tartan Carnival 2015 that brings together students, faculty, alumni and staff for an evening of fun, games and prize.

Experience

Data Science Intern August 2020 – November 2020
REA Group Asia
- Worked directly with Data Scientist, Data Engineers and internal business stakeholders to develop data science solution insights to enhance Property Tech services
- Enhanced performance of Cloud-based ETL Tool using Python/Docker/Airflow.
- Built Image Captioning Model using InceptionV3 with Keras & TensorFlow to increase accessibility & usability of property listing website.
- Developed a cost anomaly detector to manage and optimize Google Big Query costs.
- Conducted data feasibility assessment and formulated BI dashboards to provide insights for stakeholder.
- Technologies: Google Big Query, Python, SQL, Apache Airflow, SageMaker, Jupyter Notebook, Docker, Google Data Studio, GraphQL, Amazon Aurora, ElasticSearch, Kafka

Data Analytics Intern May 2020 - July 2020
Qatar Computing Research Institute, Doha, Qatar
- Applied robust deep learning technologies to automatically diagnose diseases based on textual data from Electronic Health Records of Qatar Bio Bank.
- Built Long Short-Term Machine RNN's using Python's Keras with a Tensorflow backend.
- Utilized pandas, NumPy and Microsoft Excel's statistical tools to organize and clean & pre-process a highly dimensional dataset.

Research Intern June 2019 -September 2019
University of Nottingham, Selangor, Malaysia
- Implemented and tested a novel algorithm for "Automatic Skull Region Grouping & Selection for Sex Identification "on MATLAB.
- Integrated various dimensionality reduction techniques (ISOMAP, LLE, PCA) to optimize performance of the algorithm.
- Experimented with converting MATLAB scripts to Python to leverage Python's powerful extensive standard libraries.

Technical Consultant Intern,   June 2018 - September 2018
AGTIV Consulting Sdn. Bhd , Kuala Lumpur , Malaysia

- Implemented SharePoint-based workflows and developed Business Intelligence dashboards.
- Applied current graphics design and .NET technologies to develop, modify, maintain SharePoint server portals.
- Built custom web parts, event handlers, features, site definitions, package solutions and applications that interface with other enterprise applications.
- Formulated User Acceptance Test scripts (UAT) and ensured the system functionality is fully tested within project timescales and to a high quality.
- Executed data migration in coordination with management and technical services personnel.
- Technologies used: ASP.NET / MVC / C#/ .NET /XML/ jQuery / REST / SQL /Node JS / JSON / Microsoft365

Projects

Feature selection of microarray gene expression for detection of colon cancer   October 2019 – April 2020

Undergraduate Dissertation, Supervisor: Dr. Siew Chin Neoh

Investigated existing feature selection methods and developing an intelligent feature selection method to optimize classification accuracy on colon cancer detection through implementing a hybrid filter-wrapper approach with Binary Spider Monkey Optimization and ReliefF.
Technology used: MATLAB/Bioinformatics Toolbox

Emotion Tracking System   December 2019

Implemented and tested the application of different Machine Learning techniques (Artificial Neural Networks (ANNs) , Decision Trees (DT) and Support Vector Machine (SVM)) for binary classification of smile/no smile expressions, multi-class classification of six universal basic facial expressions), and regression of the yaw-component of head-pose estimation.
Technology used: MATLAB / Neural Networks toolbox /iCCR

Sparse Binocular Algorithim   March 2020

Generated dense disparity maps using sparse features through Scale Invariant Feature Transform (SIFT) and optimized the performance of algorithm by using Random Sample Consensus (RANSAC) on the Middlebury 2003 dataset
Technology used : python / numpy /openCV / Learning Toolbox

Improving the Optimization of Neural Diversity Machines   May 2019

Enhanced the performance of the Neural Diversity Machine by employing different strategies such as integrating point based search heuristics with population based search algorithms (Memetic Algorithms) , parameter control mechanisms and population mechanics.
Technology used: MATLAB / Statistics and Machine Learning Toolbox

CropTEXT   April 2019

Crops Informational retrieval & crawling web application designed to enhance research efforts at "Crops For Future Research Center Sdn. Bhd." for underutilized crops.
Technology used: Python / Anaconda / Jupyter / Scrapy / MongoDB / Google Cloud Platform / linux /flask /nltk/TF-ID

Extracurriculars

Coding Instructor
re.code

Developed and co-designed a refugee-focused Web development bootcamp. Conducted weekend web-development boot camps to over 40 students (adults and children) covering basics of HTML, CSS , JavaScript and Interactive Programming (Scratch).

Public Speaking Coach
Present2Represent

Co-led a Nottingham Advantage Award module impacting more than 150+ students in total. Coached over 80 students on effective presentation skills and adequate public speaking skills.

Event Organizer
Islamic Society at the University of Nottingham , Malaysia.

Managed operational and administrative functions to ensure club events run successfully as well as coordinating and delegating tasks to the rest of the team. Events organized include: Interfaith Dialogue, Spirituality & Self-Awareness, Charity Week.

Lead Tutor
Sahabat Support Center for Refugees

Actively tutoring over 85 refugee kids at the center and teaching them English, Math & Science.
Acting as Head Volunteer and responsible of recruiting & managing over 50 volunteers and preparing learning materials.

Awards & Honors

Vice-Chancellor Medal 2020

Awarded for substantive contribution which has enhanced the reputation of the University of Nottingham; Activity which has had a noticeably positive impact for students, staff or the local community; An individual achievement or sustained achievement over a period of time.

Google Anita Borg Memorial Scholarship (WomenTechmaker) APAC 2018

Chosen as one of 72 scholars out of over 250,000 applicants for showcasing impact on diversity, demonstrating technical skills, leadership and academic accomplishments.

Nottingham Inspirational Woman Award 2018/2019

Nominated as one of 32 women in the Malaysian campus for inspirational contribution to the University.

Dean's Excellence Scholarship 17/18 and 18/19

Awarded for being a top achiever in the School of Computer Science at The University of Nottingham, Malaysia.