

# Fatima Tayeb



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## Education

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B.Sc. (Hons) in Computer Science, University of Nottingham, Selangor, Malaysia

Autumn 2016 –

Spring 2020

**Award** *[Predicted]: First Class,*

**Relevant Courses:** Programing Paradigms, Algorithms Correctness & Efficiency, Databases & Interfaces, Languages & Computations, Fundamentals of Artificial Intelligence, Compilers, Machine Learning, Artificial Intelligence Methods, Image Processing, Computer Vision, Operating Systems & Concurrency, Software Quality Assurance

- 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.
- Co-led a weekly Computer Science Reading Group to engage lecturers & students in discussing academic research.

B.S Computer Science, Carnegie Mellon University, Doha, Qatar.

Fall 2015

**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.

## Technical Skills

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**Proficient:** C, Python, Java, HTML,CSS,MATLAB **Familiar:** Javascript, Haskell, C#, .NET, C++,Windows Powershell , Unix

## Experience

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### Data Analytics Intern

May 2020 - July 2020

*Qatar Computing Research Institute, Doha, Qatar*

- Selected as part of QCRI's Summer Internship program to work on "A Diagnostic Decision Support System which Can Predict Diagnostic Markers"

### 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 / Microsoft36

## Projects

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### Feature selection of microarray gene expression for detection of colon cancer

October 2019 – Ongoing

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

### 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. *Technologies used: Python / Anaconda / Jupyter / Scrapy / MongoDB / Google Cloud Platform / linux / flask / nltk / TF-ID*

## Extracurriculars

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### 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.

## Awards & Honors

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### 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.

### Google Anita Borg Memorial Scholarship 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.