



Gayathri Girish Nair

Aspiring Tech Professional

Personal Details

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Location: Abu Dhabi, UAE
Nationality: Indian

Education

BSc Computer Science (Honours)
Heriot Watt University 2018 to 2022
Graduated On: 05 July 2022
GPA: 4.0 / 4.0

Key Achievements

- ★ Received **Watt Club Medal** for the *School of Mathematical and Computing Sciences*. (Topmost award that Heriot-Watt can bestow on one student per school for exceptional academic performance).
- ★ Received **Systems Consultants Ltd Prize** for *best student in a degree program* in the Department of *Computer Science*.

12th Grade

St. Joseph's School, Abu Dhabi
83%, Physics School Topper
Mathematics, Physics, Chemistry,
Biology, English, French

10th Grade

St. Joseph's School, Abu Dhabi
GPA 10 / 10.
School Topper.

Languages

English (Full Professional Proficiency)
Malayalam (Native)
Hindi (Professional Proficiency)
French (Elementary Proficiency)

Online Certifications

Data Science (Harvard X), C ++, Java
Pet Psychology, Acting.

Interests And Hobbies

- Meeting and working with people!
- Interviewer - "Talking Tech, Women and Girls in ICT" by ITU, UN (2021)
- Attended **AI Camp** by UAE govt (2019)
- Performing and Fine Arts (**University Drama Club** member | performed for causes like breast cancer awareness in university)
- Led groups of up to 25 colleagues to victory in high school talent shows, etc.
- Filmmaking and Editing (Conceived, created and presented **1st place winning short film** at Teens Day UAE 2016, etc).
- Graphic design, animation, reading, roller blading, swimming.

Objective

To use skills acquired through 4 years at **Heriot-Watt University's BSc. Honours Computer Science** programme [2018-22] (**Honours year specialization: Artificial Intelligence**) – Accredited by the Royal Charter (UK), British Computer Society (BCS) and Chartered Institute for IT on behalf of the Engineering/Science Council - at the work front, for the benefit of hiring employer and society in the field of technology (Artificial Intelligence (AI) or Machine Learning (ML), Data Science, Software Development, Web Development, Product Management, Consulting, etc) [that, and to make acquaintances with + learn from lots of lovely people 😊].

Key Skill Set (Current skills based on course experience)

Soft Skills

- Communication, Collaboration, Teamwork, Adaptability, Leadership.
- Creativity, Time Management, Self-Motivation, Empathy.
- Ability/Desire to Learn.

Technical Skills

- AI/ML (ML Algorithms, Deep NN, CNN, NLP, etc), Data Science (Exploration, Handling, Analytics, Visualization), Python (PyTorch, TensorFlow, Numpy, Pandas, Scikit-Learn, OpenCV, PIL, etc), Jupyter Notebook, Git, GitHub, GitLab, Google Collaboratory, MSExcel.
- Java, C++, C, SQL, Maya, Blender, Unreal Engine 4, HTML, CSS, JS, D3.js, ReactJS, JQuery, WeBots Robot Simulator.
- Design patterns (like MVC), Object Oriented Programming, UML, ER diagrams, Database Schema Design, Project Management, Professional Writing.
- Google FireBase, MSWord, MS PowerPoint.
- Prolog, Ocaml, PDDL, Linux, OpenGL, Unity.

Final Year Project – Gaze Estimation (GE) using Machine Learning (ML)

Gaze Estimation (GE) using Machine Learning (ML) (individual research based technical project) which proposes a new variation of a deep CNN based ML model that predicts with **loss < that of 2 existing** state of the art **models** while working with the **largest existing benchmark dataset for GE, GazeCapture**, requiring skill with management of computing resources. The work also introduces **a novel idea for input** that led to superior model performance and documents 7 experiments conducted as part of the study.

Some Other Key Projects

- Forest cover **data analysis/clustering/categorization - ML models**;
- **Twitter sentiment analysis, Amazon food review classification** (NLP) (class Kaggle competition 3rd place **winner**);
- Covid-19 (2019-21) and tennis racquet specifications **data** web-based **dashboard** development, **data analysis, data story discovery** and **presentation**;
- Designed and implemented **Behaviour** and **Genetic Algorithm** based controllers for intelligent automation of simulated e-puck robots on **WeBots**;
- Social media inspired photo sharing **web app** that catered to the needs of a real US based client (ReactJS, Firebase, etc);
- **Interactive/Animated Diorama**. (Maya, Unreal Engine 4, OpenGL, C++)
- Implemented **Steganography** using images in **C**;
- **Designed** and documented **air traffic control system**;
- Implemented improved version of existing poor **website (full stack)** (including design and implementation of database schema, MySQL);
- **Implemented** various **data structures** and **algorithms** in **Java**;
- Designed, tested low fidelity prototype of innovative pill dispensing robot as part of **user experience testing**.