

TARAVAT SHARAFAT

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SUMMARY

A determined Aeronautical Engineer with a certificate in Data Analytics and Visualization from the University of California, Berkeley Extension Boot Camp with a background in Microsoft Office, VBA, Python, Pandas, SQLAlchemy, JavaScript, HTML, Tableau, SQL, NoSQL (PostgreSQL, MongoDB) databases as well as Engineering tools in terms of MATLAB, ANSYS, AutoCAD, and SolidWorks. Have an extraordinary skills in development, research, analyzing and solving both engineering and non-engineering real-life problems both theoretically and through computer coding languages and IT software. Excel at leading teams and collaborating with diverse group of individuals.

TECHNICAL SKILLS

Languages: Python, JavaScript, R, SQL, NoSQL, HTML, VBA

Applications: MongoDB, PostgreSQL, GitHub, Flask, Tableau

Data Analyst Tools: Pandas, Matplotlib, Leaflet.js, D3.js, GeoJSON, Scikit learn, Tensorflow, Jupyter Notebook, Google Colaboratory

Engineering Tools: ANSYS, MATLAB, AutoCAD, SolidWorks

IT Software: Microsoft Word, Microsoft Excel, Microsoft PowerPoint

DATA ANALYTICS PROJECTS

Belly Button Biodiversity | <https://taravatsh.github.io/Belly-Button-Biodiversity/>

This project showcased creating a website with an interactive dashboard to explore the dataset of bacterial species living on individuals belly button.

- **Role:** Building the dashboard of the website by creating engaging and dynamic charts that display the bacterial data for each volunteer by simply allowing the participants to select their ID numbers to be able to view the data.
- **Tools:** JavaScript, Plotly, D3.js.

ENGINEERING PROJECT

Design, Construction and Operation of a Long-range Solar Powered aircraft

| <https://drive.google.com/file/d/1BxIST5WyJGdCBzlhk2hZN2l4cLzcSpnD/view>

The purpose of this project was to design, analyze, construct and operate a solar powered radio controlled aircraft by harvesting the sun's energy through photovoltaic cells placed on aircraft wings to absorb the sun rays and convert the energy into electrical current.

- Role: Visualizing the flow fields and determining the aerodynamic properties of the aircraft and analyzing the structural integrity of the entire aircraft model.
- Tools: ANSYS, SolidWorks.

EXPERIENCE

Tesla

Production Associate

10/2020–05/2021

Fremont, CA

- Assembling the door components of Tesla Model 3 vehicle by following certain rules and protocols from the user manual.
- Ensuring that the components were assembled correctly through the testing device and were free from any defects before passing them to the robots and the quality control station.

Emirates Engineering

On-Job Training

06/2018- 07/2018

Dubai, UAE

- Five weeks of on hand experience and training in aircraft component workshops such as wheel and brakes, engine, cabin and structural workshops as well as base hangars.
- In wheels and brakes workshops, automatic eddy current inspection was used for inspecting the aircraft wheels and brakes of both Boeing and Airbus series.
- In engine workshop, the aircraft engines were tested, repaired and overhauled.
- In cabin workshop, the appearance and function of all the interior soft furnishings, seats and safety equipment of the Emirates fleet were taken care of.
- Additionally, the repairing of composite and metallic structures, rigid pipes, control cables, floor, ceiling and sidewall panels were carried in the structural shop.
- In base hangars, all levels of the aircraft C checks and A checks of both Boeing B777 and Airbus A380 were carried out.

EDUCATION

UC Berkeley Extension, Berkeley, CA

Data Analytics and Visualizations Bootcamp

A 24-week intensive program focused on gaining technical programming skills in Excel, VBA, Python, R, JavaScript, SQL Databases, Tableau, Big Data, and Machine Learning.

Emirates Aviation University, Dubai, UAE

BSc. in Aeronautical Engineering

A four year degree designed in line with international quality standards. It covers the four classical areas of aerospace vehicle design; namely: aerodynamics; structures, propulsion, and flight stability and control.