

KARAN SHAH

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Education

Birla Institute of Technology and Science (BITS), Pilani, Goa Campus

Aug. 2018 – Jun. 2023

B.E. Computer Science; M.Sc. Chemistry; CGPA - 8.72

Goa, India

Relevant Coursework

College Coursework: Data Structures and Algorithms, Object Oriented Programming, Database Management Systems, Operating Systems, Computer Networks, Software Dev for Portable Devices, Deep Learning, Design & Anal of Algos

Certifications: Responsive Web Design - freeCodeCamp, Interactivity with JavaScript - Coursera, ML - Coursera, Structuring Machine Learning Projects - Coursera, Neural Networks and Deep Learning - Coursera, Improving Deep Neural Networks - Coursera, Getting started with TensorFlow 2 - Coursera.

Technical Skills

Languages: C++, Python, Java, C, HTML/CSS, JavaScript, SQL

Technologies/Frameworks: Git, GitHub, MySQL, MongoDB, PostgreSQL, Machine Learning, Deep Learning, NLP, NumPy, Pandas, Tensorflow, PyTorch, Scikit-Learn, Nltk, Ajax, Bootstrap, Flask, Docker, Jinja

Experience

GFactors, India | *Python, JS, Ajax, MongoDB, PostgreSQL, Docker, Sklearn, Spacy, Jinja*

Oct. 2021 – Jun. 2022

Full-stack Development Intern

Remote

- Created an **NLP Recommender** app using **Tensorflow, Creme, Sklearn, Spacy** and **Flask**. Created **Docker Images** of the components of this website.
- Created a **Data Annotation and Tagging** tool for text data that can select parts of sentences, assign tags and add sentiments.
- Designed back-end database tables, operations and **API endpoints** for **MongoDB** and **PostgreSQL**.
- Created a **Named Entity Recognition** model and a **Sentiment Analysis** model for the Annotation Tool and built a Worker in a Dockerized container to integrate it.

Jar (ChangeJar), India | *Python, Sklearn, MongoDB, PyMongo, NLTK*

Nov 2021 - Jan 2022

Data Science Intern

Remote

- Working on **User Profiling** using various **Supervised** and **Unsupervised** Learning algorithms.
- Created a new variables for user profiling and created logic to extract variables from Raw SMS data.
- Created a **Responsive Dashboard** to quickly fetch analytics events and dynamic data from **MongoDB**.

Infosys Summer of Ideas | *Python, Sklearn, Pandas, Flask*

Aug 2020 - Sept 2020

Team Leader | <https://github.com/karans-15/malicious-url-detector/>

Remote

- One of the **800 candidates** chosen from **200,000** applicants to register in the 2 month Ideathon, and then went on to **lead** my team to the **finals**
- Compared algorithms like **Random Forest, Naive Bayes, SVM, Decision Trees, KNN** and **XGBoost** using **Sklearn** to Detect Malicious URLs.
- Launched the model to a website created using **Flask**. where I obtained a Test Accuracy of **94%** and an FNR of **7.96%**

William O'Neil, India | *HTML, CSS, JavaScript, Bootstrap*

May 2020 - June 2020

Front End Development Intern

Remote

- Identified improvement areas and implemented a **responsive** model website using **HTML, CSS, Bootstrap** and **JS**.

Projects

Lane Boundary Detection for Autonomous driving cars | *Python, Tensorflow, C++, OpenCV*

Aug - Nov 2021

- Implemented **ERFNet**, a deep neural network used for **semantic segmentation** using **Tensorflow** version 2.
- Modified the ERFNet to fit the **lane boundary detection** problem by changing the model architecture and fine tuning hyperparameters.
- Created an image annotator using **OpenCV** with extra functionalities like superimposing labels and input images to fit the project's requirements.
- Mapped **image to world coordinates** for the images in the Oxford Robocar Dataset.

Furniture Shopping Cart | *HTML, CSS, Javascript* | <https://furniture-shop-vanilla-js.netlify.app/>

June 2021

- Created a website using **HTML, CSS** and **JS** that has major online shopping cart functionalities and hosted it on Netlify.
- Used **live dynamic data** to populate the website's products using the **ContentfulAPI** that stores data in the local storage so data retained locally.

Leadership / Scholarships

- *2018-23* — MCN Scholarship - BITS Pilani Goa Campus, Top 3%
- *2018-23* — INSPIRE Scholarship - DST - Govt. of India, Top 1% in HSC Board Examination
- *2021-22* — Course Mentor for Object Oriented Programming (CS F213) - CSIS, BITS Goa
- *2020-21* — Events Head, Waves, BITS Goa

80%
Rs. 80000/-
Remote
Goa