Vishwa Shah

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Education

BITS Pilani, K K Birla Goa Campus — *Goa, India*

Bachelor of Engineering in Computer Science, **CGPA: 9.05/10** — *Aug 2018 - expected May 2022*

Pace Junior Science College, Borivali, Mumbai — *Maharashtra, India*

Class 12th: 94.77 % — *March 2017 - April 2018*

Coursework

Relevant Coursework: Object Oriented Programming, Discrete Structures in Computer Science, Data Structure and Algorithms, Database Management Systems, Machine Learning, Convolutional Neural Networks, Sequence Models,Probability and Statistics, Linear Algebra, Operating Systems*, Computer Architecture*, Cognitive Neuroscience*.

* = Ongoing

Work Experience

Microsoft India (R&D)

Software Engineer Intern — *May 2020 - July 2020*

- Worked on the project **Carbon Dashboard** which provides granular insights and analysis of carbon emissions across buildings.
- Developed a **Time Series Model using Machine Learning** to predict the attendance of people, to allow better planning, reducing the wastage of resources and carbon emission.
- Used features like **trend, seasonality** and **correlation** for tuning the model and interfaced the result and metrics on PowerBI dashboard. Tech stack used: PySpark, **Python, SQL, Databricks, PowerBI** and **Azure services.**

CSIR - Central Electronics Engineering ResearchInstitute (CEERI), Pilani

Research Intern — *May 2020 -June 2020*

- Built **deep learning models** for **Structural Health Monitoring-Damage Classification** using features like inter-story drift ratio
- Used **CNNs** on simulated accelerometer signals for classifying structural state based on damage, helping address vulnerable structures in the aftermath of a natural event. Worked using **Python** and **TensorFlow**.
- This project was done under the guidance of Dr Kota Solomon Raju and Dr Gaurav Purohit, CSIR - Central Electronics Engineering Research Institute (CEERI), Pilani

Projects

Modelling The Cognitive Functions of Consumer Behaviour

Supervisor: Prof. Bharat Deshpande, BITS Pilani, K K Birla Goa Campus | **GitHub** — *Jan 2020 - Jun 2020*

- This project aims to predict **consumer behaviour** using brain wave measurement technology and and machine learning.
- Processed the collected brain data-**EEG** signals using **MATLAB** EEGlab toolkit.
- Developed a **Machine Learning Model** in **Python** to predict consumer behaviour using classification algorithms like K- Nearest Neighbors and Random Forest on the processed EEG data.

Markov Chain Model For Natural Language

GitHub — *June 2019*

- Used a Markov Chain to create **probability distribution** of each successive letter depending on the preceding letters for a piece of English text.
- Simulated Markov chain to generate pseudo-random text in **Java** from this probabilistic distribution.

Teaching Experience

Discrete Structures for Computer Science, CSF222

Teaching Assistant, BITS Pilani, K K Birla Goa Campus — *Sep 2020-Ongoing*

- Assisting with developing solution set for assignments and supervision during evaluative components

Introduction to Computer Programming, CSF111

Teaching Assistant, BITS Pilani, K K Birla Goa Campus — *Jan 2020 - May 2020*

- Helped first-year students by solving their doubts during weekly C programming labs.
- Set up coding questions for evaluative labs.

Accomplishments

2020 **2nd Place**, Hack for Sustanability, Microsoft Global Hackathon

Skills

Languages: C++, Python, C, Java, SQL, MATLAB

Libraries and Frameworks: TensorFlow, PyTorch, Keras, PySpark, NumPy, Pandas, Scikit-Learn

Volunteering Experience

Women in Machine Learning and Data Science, Goa chapter

Campus Representative *June 2020 - Ongoing*

- Organizing events and workshops related to Machine Learning and Data Science and encouraging campus enthusiasts to participate in the same.

Peer Mentorship Programme BITS Pilani, Goa Campus

Mentor *Aug 2019 - May 2020*

- Mentored a group of eight first-year students to adjust with college life routine.
- Held discussions to provide guidance in studying first-year courses and managing extra-curricular activities.