Devarsh Patel

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EDUCATION

Northeastern University (Khoury College of Computer Sciences), Boston, MA **_May 2023_**
Master of Science in Computer Science GPA: 3.91/4.0
Relevant Coursework: Algorithms, DBMS, Programming Design Paradigm, NLP, Web Development
Gujarat Technological University, Ahmedabad, India **_May 2021_**
Bachelor of Engineering, Computer Engineering CPI: 9.38/10
Relevant Courses: Python Programming, DBMS, Data Structures and Algorithms, Data Science, Web Technology

SKILLS

Languages:	Python, Java, SQL, JavaScript, React, HTML, CSS, R, C/C++.
Tools and Technologies:	GIT, NodeJS, React, jQuery, Flask, Keras, TensorFlow, Redux, OpenCV, Bootstrap, NumPy, Pandas.
Database:	MySQL, MongoDB, Snowflake, Oracle.
Domain:	Data Structures & Algorithms, Object Oriented Design, Test Driven Development, Data Science, Machine Learning, Deep Learning, Computer Vision, Junit Testing, Full Stack Development.
Soft Skills:	Leadership, Management, Communication, Public Speaking, Content Writing.

EXPERIENCE

Graduate Teaching Assistant (DS2000: Programming With Python), Northeastern University **_Jan 2022 - May 2022_**
- Managed 250 students under Prof Laney Strange, and John Rachlin also created solutions and rubrics for the assignments, and organized the code walks to review the code for the students.
- Conducted office hours to solve the queries of the students and succeeded to increase the average score on the assignment by 30% and achieved 100% success ratio on the mid semester exam.

Software Developer Internship, Riddhi Corporate Services Limited, Ahmedabad, India **_Mar 2020 - Jun 2020_**
- Created a project on socket programming using NodeJS and databases like MongoDB which provides the functionality to create chat rooms
- Designed an interactive chat-app using NodeJS that would be used for organizations' internal communication.
- Implemented the basic login authorization system using NodeJS to authorize the user trying to access the webpage.

Artificial Intelligence Internship, Teksun Inc, Ahmedabad, India **_Nov 2020 - Jan 2021_**
- Collaborated with Juber Gandharv and team on development of various deep learning modules and optimization of the system to create an Edge processing-based device for health sector which keeps the track of user's health data.
- Built a system named as Hello AI, which uses the technologies like deep learning, machine learning to give the user the prediction of their health parameters like heart beat rate with 94% accuracy.

Data Science Internship, Tuckers Software PVT LTD, Ahmedabad, India **_May 2019 – Jul 2019_**
- Executed the depth sensing project, where the task assigned was to find the depth of the particular object with the help of triangulate distance and object detection.
- Presented the project to the client and help them understand the usefulness of the project in their working domain.

PROJECTS

Graphical Adventure Game **_Sep 2021 - Dec 2021_**
Technologies Used: Java, MVC, Swing, Junit Testing, Various Design Patterns
- Drafted the Graphical User Interface by using java swing which interacts with the user to take next game input and unfolds the maze base on the user input.
- Designed and developed a graphical adventure game where the maze is randomly generated using Kruskal's Algorithm.
- Implemented all the functionalities of the game using Object-Oriented Design concepts and MVC architecture in java.

Smart Glasses User Assistant Gadget **_Jan 2021 - July 2021_**
Technologies Used: Python, CNN, RNN, OpenCV, Tensorflow, Raspberry Pi, Deep Learning
- Developed the glasses which can aid the visually impaired to perform their day-to-day task very easily.
- Optimized different modules using applications of parallel programming as well as by reducing the computational complexity to increase the frames per second processing of the system by at least 30% in order to achieve the goal of real time input video processing.
- Compiled various module like crosswalk detection, object detection, image captioning, facial recognition at one place.

Object Tracking **_Feb 2021 - April 2021_**
Technologies Used: Python, Computer Vision, Deep Sort, Kalman Filter, Keras, Imagenet
- Administered a system which takes the video feeds as an input and tracks the object in the particular feed with the help of technologies like Kalman filter, object detection.
- Enhanced this system using deep sort which can help the system to track multiple occurrences of same set of objects.
- Used the swagger API to create a front end of the project which can provide an effective user interface.

PUBLICATIONS

- Exploiting the Capabilities of Blockchain and Machine Learning in Education. (Springer) **Jan 2021**

- Integrating Machine learning and Blockchain to develop a system to veto the forgeries and provide efficient result in education sector. (Springer) **Jun 2021**