

Shubham Rajpurohit

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Objectives

I am highly motivated computer science engineering student with strong interests in coding, big data & machine learning, and artificial intelligence. I plan to pursue a research based career where I can learn new tools while applying my core strengths in computer science and data science to solve challenging scientific and real-world problems.

Work Experience

September 2022-2023 Research Scientist at Center for Ocean-Atmospheric Prediction Studies (COAPS); Florida State University, Tallahassee FL, United States

Currently working as an AI Software Developer at RTE (Remote Tech Experts) Softwares in Ludhiana, Punjab

Education

B. Tech in Computer Science & Engineering (Major Big Data); Department of Engineering, Design & Automation, GNA University, Punjab

(Percentage: 72%)

Studied at Florida State University for one semester with a GPA of 3.7/4.0
(Master's in Data Science)

Coursework (Undergrad): Mathematics-I, II & III, Discrete Mathematics, Chemistry, Physics, Engineering Drawing, C, C++, Object Oriented Programming, Data Structure & Algorithms, Digital Electronics, Finance & Accounting, Operating Systems, Design & Analysis of Algorithms, Basic Electrical & Electronic Engineering, Business Communications, Engineering Chemistry, Programming for Problem Solving, Database Management Systems, Computer Architecture & Organization, Computer Networks, Python Programming, Compiler Design, Big Data, Software Engineering, Java Programming, Data Warehousing and Mining, Machine Learning, Artificial Intelligence, Graph Analytics of Big Data.

Coursework (Grad): Introduction to Data Science, Applied Regression Methods, Mathematics for Data Science

Certifications

1. IBM professional certification in Data Science. Completed 9 IBM courses in data science (edX):
 - i. Introduction to Data Science
 - ii. Data Science Tools
 - iii. The Data Science Method

- iv. SQL for Data Science
 - v. Python Basics for Data Science
 - vi. Analyzing Data with Python
 - vii. Visualizing Data with Python
 - viii. Machine Learning with Python: A Practical Introduction
 - ix. Data Science and Machine Learning Capstone Project
2. HackerRank Python Gold Badge (5 Star Rank)
 3. Certification in R Language (Harvard University, edX)
 4. Crash course for Python (Google)

Technical Skills

Languages: expertise in Python, SQL ,Langchain,Openai,Vector database,Prompt Engineering;
Working knowledge of HTML

Tools: Jupyter Notebook, Visual Studio

Projects

1. **Super Resolution(Research):** We used super-resolution techniques to convert low resolution output from HYCOM ocean circulation model into a higher resolution output, and evaluate its fidelity and gains in performance
2. **Face mask detection using ML:** Employed opencv module and python programming to detect if a person is wearing facemask or not with nearly 95% accuracy.
3. **Bridge overloading detection:** Goals of this project is to detect overloading of bridge over specified capacity. Utilized machine learning modules, opencv, numPy and python language to detect vehicles crossing the bridge or present on the bridge and based on size, shape and pre-specified weight specifications calculate bridge loading. Real time video monitoring would provide alerts if the bridge is near overloading to help prevent bridge damage.
4. **Voice assistance:** Created digital voice assistance tool that uses voice recognition, language processing algorithms, and voice synthesis to listen to specific voice commands and return relevant information or perform specific functions as requested by the user. Various libraries/modules of Python such as smtplib, pyttsx3, speech recognition, date/time, wikipedia, internet OS were employed.
5. **Chat Bots :** Created Chatbots using langchain , Openai, Vector database

Workshops and Trainings

1. Completed 45 days internship in machine learning domain at Career Dreams Educations, Rajasthan, India
2. Participated and completed with distinction the workshop “Quadcopter Design”, a project based training program organized by Skyfi Labs at GNA University, September 2018
3. Attended ‘CPU behind the scenes’ training workshop at GNA University, July 2018

4. Participated in 'Know Your Vehicle' workshop at GNA University, October 2018
5. Participated in 3rd International Equanimity Olympiad-2017

Skills

- Energetic, reliable and trustworthy, hardworking
- Collaborative and team player with excellent communication skills

TOEFL SCORE

- 102 out of 120