Sharad Swaminathan

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EXPERIENCE

UNC Charlotte — January 2022 – Present
Instructional Assistant — *Charlotte, NC*
- Served as a teaching assistant for a class of 90 students for the undergraduate Databases class by conducting weekly office hours, and grading assignments.
- Managed 4 teaching assistants by communicating duties, coordinating weekly meetings, and tracking progress.

GoPeaks Lab (UNC Charlotte) — October 2021 – December 2021
Research Intern — *Charlotte, NC*
- Developed a website using Python that that provides an easy-to-use interface to visualize a knowledge graph that maps organizational factors to their outcomes to help gain insight on business performance.
- Implemented features for uploading and filtering data as well as downloading the resulting graph as an image.

ACG World — December 2020 – March 2021
Software Developer Intern — *Mumbai, India*
- Worked on a web application that monitors pharmaceutical machines for quality control and generating insights.
- Created data visualization reports in PowerBI for machine data and embedded them in the web application.
- Developed a UI using React.js for sharing PowerBI reports, used by 200+ users and integrated UI elements with the REST API on the backend.
- Enhanced the functionalities of the embedded PowerBI reports by adding a feature to reset hierarchical filters, reducing report load time by 80%.

PROJECTS

det0x - Toxic Comments Classifier | *Python, Flask, Keras, Tweepy*
- Developed a web application using Flask to gain insight on the percentage of toxic tweets of Twitter users in order to determine their online behaviour based on their tweet history.
- Implemented a machine learning model using Keras for a dataset labeled on a spectrum of toxicity, achieving an accuracy of 92% on test data.
- Created word embedding vectors using GloVe embeddings for vectorizing text input.
- Integrated the Twitter API into the web application to fetch tweets of a user.

Chess Statistics Visualization | *Python, Streamlit, Pandas, Numpy*
- Developed a website using Python to obtain insights on global chess statistics by country, age, rating, and gender.
- Integrated country data from multiple sources using Pandas to visualize chess statistics for all countries by using a world map plot.

Lyricify - Spotify Lyrics | *Python, BeautifulSoup, GTK*
- Developed a command-line and GUI desktop application for Linux that displays lyrics for Spotify songs.
- Implemented a Python script that fetches lyrics by web scraping.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, HTML/CSS
Frameworks/Libraries: React.js, Express.js, Node.js, Flask, Redux, GraphQL
Tools: Git, Linux, PostgreSQL, MySQL, MongoDB, PowerBI

ACHIEVEMENTS

- Contributor to **lichess.org**, an open source website for playing chess - with 15 accepted pull requests.
- Completed a certificate course on **fullstackopen.com**, covering modern full stack development using technologies such as React.js, Express.js, Redux, and GraphQL.

EDUCATION

University of North Carolina at Charlotte — August 2021 – May 2023
Master of Science in Computer Science; GPA: 4.0 — *Charlotte, NC*

University of Mumbai — July 2015 – May 2019
Bachelor of Engineering in Information Technology — *Mumbai, India*