Abhishek Saxena

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EDUCATION

SRM Institute of Science and Technology

B.Tech Computer Science (GPA:9.16)

• Specialization in big data analytics.

WORK EXPERIENCE

Nimble Box

Remote

Research and Development Intern

Jul 2022 - Present

Tamil Nadu, IN

Graduation Date: Jun 2023

- Developed a High-performance Logging and Monitoring application (Monitoring) for python with MongoDB and Protocol Buffers that can serve 122 RPS and show data on a live dashboard with Nimblebox's SDK.
- Built a prototype for a generic performance testing framework that can create system load by splitting tasks into a multi-core, multi-thread setup.

Frappe

Remote

Software Development Intern

Jul 2021 - Apr 2022

- Designed and implemented a query builder inside the frappe framework using Pypika to improve the developer experience
- Improve Multi-DB support by re-writing about 140 raw SQL queries with the query builder for on-the-fly translation.
- Build a robust migration system by using hashes to compare schema files resulting in a 13.09% faster, efficient, and conflict-free
- Upgraded the query sanitization process using parameterized queries by default to sanitize queries with no extra developer effort.
- Fabricated an App dependency management system into Bench(Frappe's CLI) to pin app versions and resolve conflicts.
- Increased test coverage for the query builder module to 67% by writing extensive tests.
- Delivered The presentation 'Data Talk: Pythonic Query Building' at the 'ERPNext conference 2021.'

PROJECTS

GitHubSRM

Remote

Python, Django, NextJS

Aug 2021 - Sep 2021

- Built three NextJS apps that work as the Main website, Maintainer, and Admin Portals.
- Designed the backend infrastructure with 15+ routes that served the website by performing various tasks, including Permissions, Error resolution, AWS integrations to trigger lambdas and email templates, etc.

ProGAN Remote

Python, PyTorch

Feb 2021 - May 2021

- Re-implemented Nvidia's paper on 'Progressive Growing of GANs for Improved Quality and Stability from scratch.
- Created an easy-to-use, customizable class to train ProGAN on any dataset, which makes ProGan accessible to any beginner.
- Trained on AWS's Sagemaker with fashion dataset and CIFAR-10 on google colab.

Nobook.learn Remote

Python, JavaScript, ReactJS, PyTorch

May 2021

- Designed an educational web app using React and FastAPI with hugging face ML models to help students learn in a dynamic environment.
- Using four machine learning models, we scan textbook content and generate an interactive quiz for a student. Continuously changing its difficulty level to adapt to the student's level of knowledge on the subject.

Palette-Net Remote

Python, PyTorch, Jupyter

Jan 2021

- Re-implemented a deep learning model that can re-color any Image to the users' choice of color palette.
- Created our custom image dataset of 20,000 images by web scraping and pre-processing pictures from the internet.
- Engineered pipelines to preprocess raw images, store them and train a two-part model.

AWARDS

IIT Bombay's EdTech Hackathon

Remote Apr 2021

Runner Up

• Ideated and implemented an MVP for "Nobook.learn", which bagged us a prize of 40K.

HACKCBS 3.0

Remote Oct 2020

Runner Up • MLH-powered hackathon where we built a solution to combat covid-spread in workspaces which earned us a prize of 15k

Hack this Fall 2.0

Remote

Winner

Sep 2020

• Bagged the First prize in a competition of 80 teams by building 'Shikshak,' a product to make academics affordable.

SKILLS & INTERESTS

Skills: Python, JavaScript, Django, FastAPI, TensorFlow, PyTorch, ReactJS, TailwindCSS, Redis, MongoDB, AWS, Testing

Interests: Computer Vision, Photography, Graphic Design, Video Editing