SAKSHAM ARORA

Software Developer

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Technical Skills

Programming Languages: Python, C++, C, Shell, Dart, Flutter, R, PostgreSQL, JavaScript

Tools and Frameworks: Scikit-Learn, Pandas, Pytorch, Tensorflow, OpenCV, PyGame, PyQt, Flask, Git/GitHub, Google Cloud Platform, Docker, Firebase, Heroku, CI/CD (Travis, Jenkins)

Interests: Deep Learning, Computer Vision, Backend Development, Research, Project Management, Mathematics

Experience

Juspay Technologies   **July 2021 - Present**

Technical Product Analyst Intern   *Remote*

- Working with the Settlement and Reconciliation Team of 12-15 people to build a robust product to handle financial data and manage everyday financial operations from a business perspective.
- Incorporated scripts using - **R, Python, PostgreSQL, Docker** and utilizing ORMs to perform Data Analytics, Service Integration, and Testing.
- Utilized Jenkins and set up daily cron jobs to provide a continuous integration service in order to automate the entire process of settlements and reconciliation of payments.

Python Software Foundation   **May 2021 - August 2021**

Project Mentor   *Remote*

- **Guided 3 student developers** for Intel's Open-Source project DFFML ⦿, in Google Summer of Code on projects involving - 1. Archive support for machine learning models, 2. Data cleanup operations, 3. Jupyter notebook support.
- Co-ordinated and participated actively in brainstorming ideas, reviewing, and collaborating with students on tasks.

Python Software Foundation   **May 2020 - August 2020**

Google Summer of Code Student Developer   *Remote*

- Contributed to Intel's open-source repository DFFML. Project Link: Integrating Image Processing into DFFML ⦿
- Implemented OpenCV-based operations for **image manipulation, pre-processing**, thus automating more than 80% of the task and implemented i**mage processing and deep learning** pipelines.
- Wrapped **PyTorch**-based Convolutional Neural Network Models with dynamic loading for classification on image datasets.

Education

Maharaja Agrasen Institute of Technology   **July 2018 – June 2022 (Expected)**

Bachelor of Technology in Information Technology   *Delhi, India*

CGPA (till 6th Semester) : 8.96/10

Projects

Handwrite ⧉ | *Python, Typography, Image Processing, Flask, React*   **December 2020**

- Collaborated to develop a tool that lets anyone create custom fonts based on their handwriting which can easily be used in text editors and word processors.
- Available as a Python Package (more than 5,500 downloads) and as a React WebApp ⦿.

RoadFighterAI ⧉ | *Python, AI, Deep Learning*   **July 2020**

- Remade the racing arcade game 'Road Fighter' using the PyGame library.
- Used reinforcement learning techniques like NEAT and Deep Q learning using PyTorch to create an AI car agent to learn to drive through traffic without collision. More than 50 agents trained together to select the best.

Simulate ⧉ | *Flutter, Dart*   **January 2020**

- A collection of more than 10 smooth, informative, beautiful simulations based on mathematical concepts and algorithms
- Support for Android, iOS, and Web ⦿.

Other Projects | *Computer Vision, Deep Learning, Machine Learning, Flutter, Dart*

- **BoxIt**: A Flutter-based multiplayer dot connecting game using Websocket server. It can be played by 2-4 players.
- **Toy-Neural-Network**: A neural network library written from scratch for understanding of deep learning concepts.
- **Image Colorization**: Implementation of a deep learning image colorization pipeline using PyTorch and OpenCV.
- **Sudoku Solver**: A Computer Vision based project to solve a 9x9 Sudoku using unsolved sudoku images as input.