Aditi Juneja

Schefflera-Arboricola | aditi-juneja-940838204 | Blogs | aditijuneja7@gmail.com

WORK EXPERIENCE

Independent Contractor - NumFOCUS(Scikit-image)   November 2024 - Present

Coordinated and collaborated with developers from various scientific Python open-source projects to incorporate an 'entry-point' based API dispatching mechanism in scikit-image. Experimented with different approaches; collected feedback from scikit-image and cuCIM developers to improve the machinery and the user-API; contributed towards supporting other general activities in scikit-image.

Contributor - Google Summer of Code (NumFOCUS)   May 2024 - August 2024

Integrating NetworkX's and joblib's configuration systems into nx-parallel, switching the build tool from hatchling to setuptools, automating backend metadata updation through a pre-commit hook, improving and providing custom chunking capabilities for all existing algorithms. Beyond the proposed items, created a conda-forge feedstock for nx-parallel, started discussions on the future directions nx-parallel could go and accomplished various other enhancement and maintenance goals. (Final report and Bi-weekly blogs)

Independent Contractor - NumFOCUS(NetworkX)   Jan 2024 - Mar 2024

Developed on nx-parallel, a newly added parallel backend for NetworkX utilizing joblib to parallelize graph algorithms; set up the asv benchmarks; analyzed the effects of chunking on speedups; added 15 parallel graph algorithms; integrated the 'entry-point' that exports backend metadata to networkx. Know more!

Skills/Tools learned: Python(API dispatching, Python package management, joblib-parallel algos, NetworkX-graph algos, scikit-image-image analysis, pytest-testing) ASV(for benchmarking), GitHub(CI/CD), maintaining a large open-source community and codebase.

ACTIVITIES

- Maintainer/Core Developer - NetworkX, nx-parallel (conda feedstocks of both packages) [Volunteer]
- Presented talks, posters, sprints at EuroSciPy, SciPy US, PyCon India, PyData Global 2024 [Work]
- Volunteer PyData Global 2024, PyDelhi local chapter - proposal reviewer.
- All India Rank 686 (out of 39,210 candidates) in GATE(Data Science and AI) 2024
- Expository writings - Kruskal's algorithm-blog, Math food play, LCG and Randomness and more!
- NPTEL courses - Deep Learning(Top 5%), Social Networks(Top 1%) (Certificates - on LinkedIn)

PROJECTS

E-commerce Website   [Code]

A Flask-based e-commerce web app, featuring CRUD APIs, RBAC authentication. Features like order placement, inventory management, scheduled tasks (emailing reminders/reports), product recommendations, and other diverse functionalities for the 5 user types.

Tools/libraries used: Python, Flask, flask-restx, Docker, SQLite(RDBMS), sklearn, Celery, HTML, flask-mail, Github, shell scripting, Stripe (online payments API), Twilio (message sending API), Swagger

EDUCATION

University of Delhi
Bachelor of Science (Honors) Computer Science   2021 - 2024
Indian Institute of Technology, Madras(Remote)
Bachelor of Science in Data Science and Application   2021 - Present