

Good First Issues in Retworkx

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Contributions

Contributions to the graph library powering Qiskit:

- Add generalized Petersen graphs generator (#497)
- Use Vector for intermediate computations in Dijkstra (#493)
- Add Zenodo Metadata (#486)
- Simplify graph type usage (#467)
- Remove repeated `weight_callable` code (#462)

And submitted our paper to the Journal of Open Source Software!

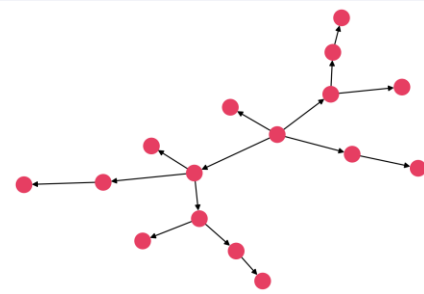
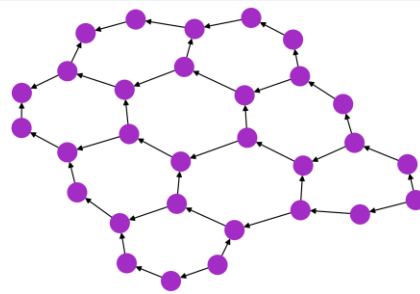
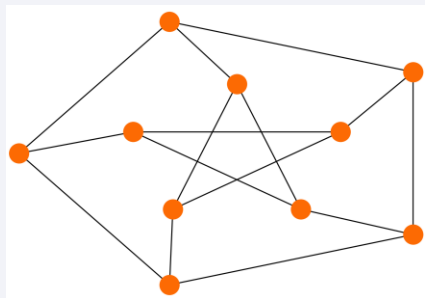
networkx: A High- Performance Graph Library for Python

(arxiv 2110.15221)

Network and graph analysis is a widely applicable field of research, and Python is a popular programming language. In networkx, we provide a high-performance, flexible graph and network analysis library for Python. networkx is inspired by NetworkX but addresses many performance concerns of the latter. networkx is particularly suited for performance-sensitive applications that use graph representations.

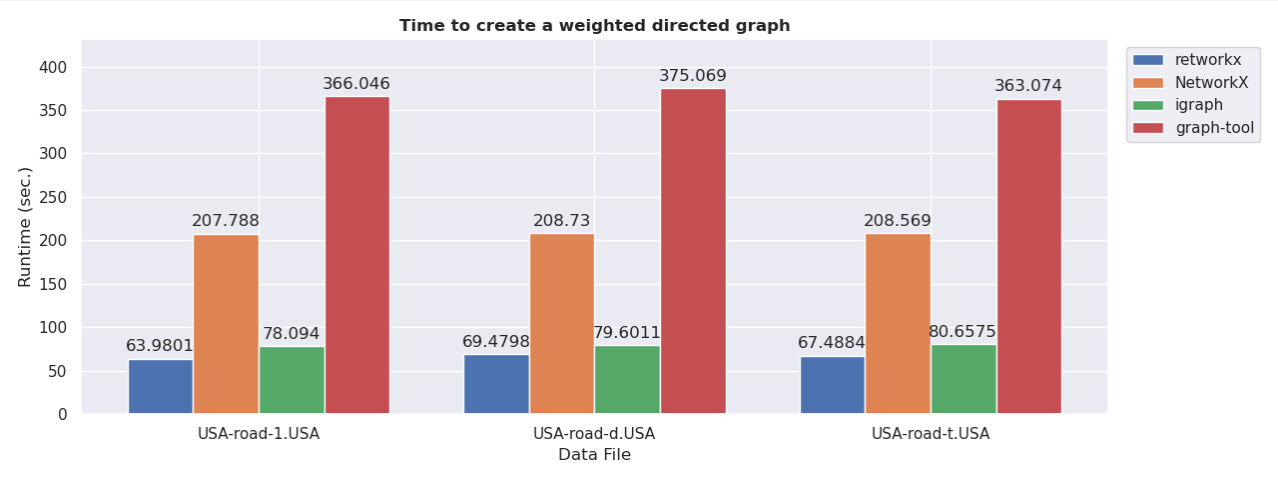
Graph Data Structures

(arxiv 2110.15221)



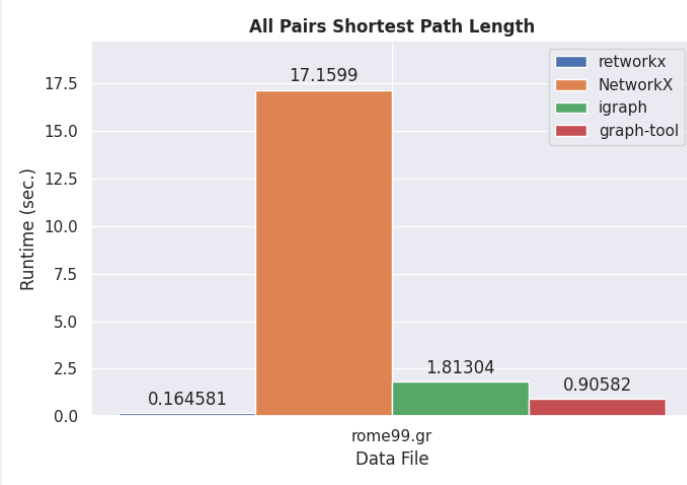
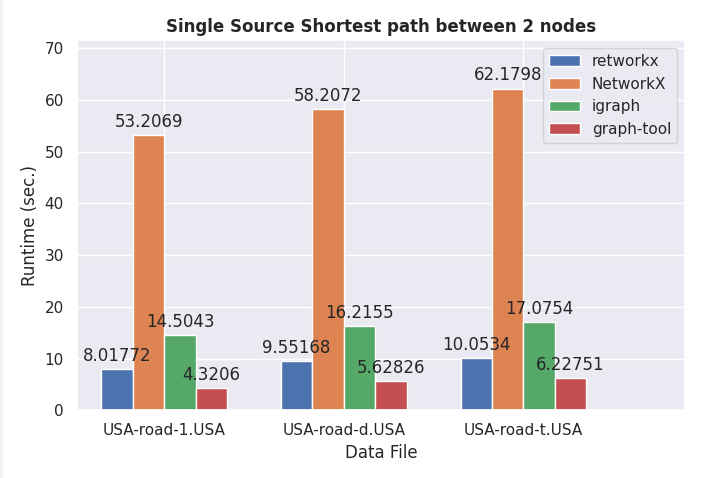
Graph Creation Benchmark

(arxiv 2110.15221)



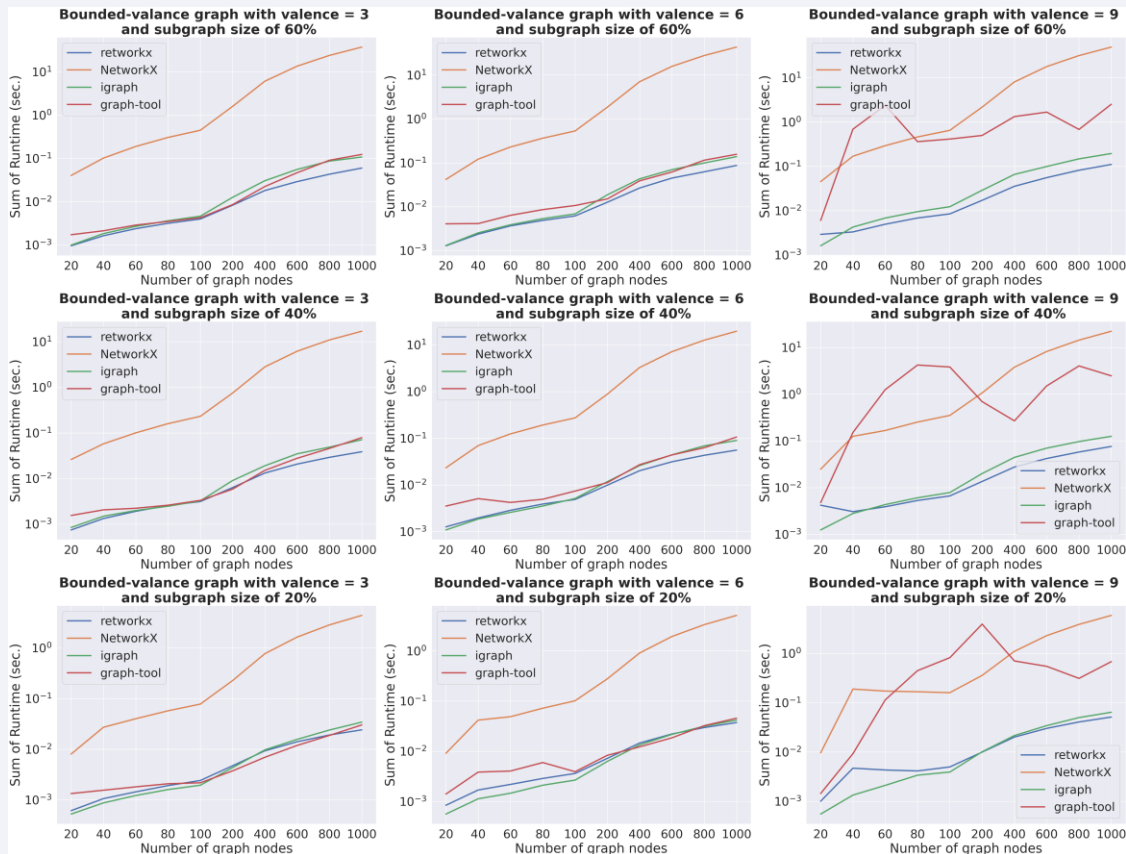
Weighted Shortest Paths Benchmarks

(arxiv 2110.15221)



Subgraph Isomorphism Benchmarks

(arxiv 2110.15221)



Our experience submitting to JOSS

- Paper must be written in markdown
- Submission happens via a Github repository
- Review also happens on Github via Issues
- Software and documentation are also reviewed together with the paper
- Software must have an archive (e.g. Zenodo, figshare, etc)