Mridul Seth

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https://github.com/MridulS

WORK EXPERIENCE

European Spallation Source
Copenhagen, Denmark

Scientific Software Developer
04/2024 - Present

- Developing software for data reduction and maintaining the scipp ecosystem.
- Technical stack: Python, Jupyter, General OSS maintenance, Kafka

Independent Contractor
Remote

Software Engineer (Research - Scientific Python)
01/2022 - 03/2024

- Co-PI on a grant from Chan Zuckerberg Initiative through the Essential Open Source Software for Science program. Worked on maintenance and development of NetworkX (49M downloads/per month on PyPI). Collaborated with team from NVIDIA to introduce the backend dispatch system to NetworkX.
- Worked with Anaconda, Inc on their JupyterHub product/consulting and support for broader Jupyter ecosystem needs.
- Technical stack: Python, General OSS maintenance, Slurm, Kubernetes, Jupyter(Hub/Lab)

GESIS - Leibniz Institute for the Social Sciences
Cologne, Germany

Scientific Software Engineer
10/2020 - 12/2021

- Development and maintenance of open source projects like GESIS notebooks, Persistent BinderHub and gesis.mybinder.org.
- Technical stack: Python, Docker, Kubernetes, Jupyter(Hub/Lab), GitLab CI/CD

Independent Contractor
Remote

Software Engineer (Research - Scientific Python)
08/2019 - 10/2020

- Worked with the econ-ark team (John Hopkins/NumFOCUS) to develop the HARK project (economic modelling of heterogeneous agents) and worked on the tooling of the Python data science stack in the project for reproducible builds of research projects/notebooks.
- Technical stack: Python, Cloud (GCP, AWS), Docker, Kubernetes, CI, Jupyter

Google Summer of Code
Remote

Open Source Developer and Organisation Administrator
Summer 2015 - Summer 2023

- **2017 - 2023** - NumFOCUS Organisation Administrator [Volunteer Position]
  * Responsible for the organisation of GSoC for NumFOCUS. 223 student summer projects over 7 years.
- **2016** - National Resource of Network Biology, Developer [Funded position]
  * Added functionality to upload GPML format files to graphspace.org, a network sharing platform primarily used by biologists to share biological pathways. Used different tools like Python, Django, JavaScript, jQuery, Git.
- **2015** - Python Software Foundation, Developer [Funded position]
  * Redesigned the core API to be iterator friendly and moved from list/dictionary returns to iterators. Used Python for most of the work and software tooling(Git, Sphinx, CI).

ICTEAM, Universite catholique de Louvain
Louvain-la-Neuve, Belgium

Research Assistant(Data Science) working on consensus in networks.
05/2018 - 08/2019

Mathematics Institute, University of Oxford
Oxford, United Kingdom

Visiting researcher with Renaud Lambiotte working on information extraction from Wikipedia.
01/2018 - 05/2018

Complexity and Networks, University of Namur
Namur, Belgium

Research Internship with Renaud Lambiotte working on algorithms for directed networks
08/2017 - 12/2017

Laboratoire d' Informatique de Paris 6, Sorbonne Universite
Paris, France

Research Internship with Robin Lamarche-Perrin working on modular decomposition of link streams
Summer 2016

Activities

- Community manager of the Scientific Python project - A loose federation for coordinating work between various core projects like scipy, numpy, pandas, scikit-learn, networkx, etc.
- Core developer of open source projects - NetworkX and Econ-ARK.
- Presented talks/tutorials at multiple international Python and data science conferences about my work. NVIDIA GTC [2024], PyCon US [2019, 2018, 2017], SciPy US [2018, 2020], PyData [NYC 2018, 2017 - LA 2018 - London 2018 - Delhi 2018], McKinsey & Company, Belgium and more in Germany, Poland, Slovakia, Japan, India.
- Co-chair for PyCon US [Tutorials Committee - 2022, 2023, 2024], SciPy US [Maintainers track - 2022, 2023, 2024]
- Reviewer for conferences like SciPy US [2018, 2019, 2020], PyCon US [2020, 2021], ICSWM [2020, 2019].
- Created content for subscribers of DataCamp.
- TA for LINMA2710 - Scientific Computing(graduate course, UCLouvain, Spring 2019). Instructor of Introduction to Python (CTE, BITS-Goa, Fall 2015)

Education

Birla Institute of Technology and Science   Goa, India
Master of Science in Mathematics   *2013 – 2018*
Bachelor of Engineering in Electronics and Instrumentation   *2013 – 2018*