

Tirth Patel

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Undergraduate student in Computer Science working on the SciPy project. Previously, GSoc 2020 & 2021 participant.

CORE SKILLS

Programming Languages: Python/Cython, C, C++, Julia

Tools: Git, L^AT_EX

Databases: MongoDB, Oracle SQL

Technology and Skills: Software Development, Numerical Computing, Machine/Deep Learning, Bayesian Statistics

EDUCATION

Nirma University

B.Tech in Computer Science and Engineering

PPI: 8.6/10

Ahmedabad, Gujarat

2018 – 2022

WORK EXPERIENCE

Software Engineering Intern @ Quansight Labs

Jan 2022 – Present

- Working on the [DLPack](#) project under the mentorship of [Matti Picus](#), the co-creator of NumPy and maintainer of PyPy
- My goal is to contribute documentation, tests, bug-fixes, and features to DLPack and other packages using DLPack (e.g. NumPy, CuPy)

SciPy Maintainer @ SciPy Organization

Aug 2021 – Present

- Contributed enhancements, bug-fixes, and documentation patches to SciPy on GitHub since May 2020.
- Author of the `scipy.stats.sampling` submodule.

Google Summer of Code 2021 with SciPy @ Python Software Foundations

May 2021 – Aug 2021

- Integrated C library UNU.RAN in SciPy for random variate generation from non-uniform distributions.
- Wrote tests, documentation, tutorial, and benchmarks for each generator added to SciPy.
- Weekly log of my Project: <https://blogs.python-gsoc.org/en/tirthasheshpatels-blog/>

Google Summer of Code 2020 with PyMC @ NumFOCUS

June 2020 – Sept 2020

- Developed a higher level Gaussian Process API for the next major release of the PyMC project.
- Bi-Weekly log of my work: <https://tirthasheshpatel.github.io/gsoc-2020/>

PROJECT WORK

Searching in AI

Jan 2020 – Feb 2020

- Created and explained animations for various search algorithms in Python.
- Published an article in Analytics Vidhya: [See Article](#)
- Learnings: BFS, DFS, Dijkstra, and A* search algorithms, Matplotlib for animations

Facial Composites

Feb 2019 – June 2019

- Developed a Variational Autoencoder to generate faces.
- Used bayesian optimization for quick search of a desired face.
- Learnings: Variational Inference, Bayesian Optimization, Gaussian Processes, GPy and GPyOpt libraries

ARTICLES

[HandCrafting an Artificial Neural Network in pure NumPy](#) in *Towards Data Science, A Medium Publication*

CERTIFICATIONS

[Deep Learning Specialization by Andrew Ng](#)

deeplearning.ai

[Machine Learning by Andrew Ng](#)

Stanford University

[Bayesian Methods for Machine Learning with Honors](#)

HSE, Russia

[The Complete Python Course](#)

Udemy

EXTRACURRICULAR

[Speaker at Data Driven Astronomy Workshop](#)

Oct 2019

[Python Bronze Badge and 1500+ Reputation on Stack Overflow](#)

[Community Service: Nisarg Community Science Center](#)

May 2019 - June 2019