

## Tirth Patel

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### OBJECTIVE

Undergraduate student in Computer Science and Engineering looking for research internship and software developer positions.

### CORE SKILLS

Python/Cython/C/C++/Julia, Git, Machine Learning, Data Science, Bayesian Statistics, Bayesian Machine Learning

### EDUCATION

#### Nirma University

B.Tech in Computer Science and Engineering

GPA: 8.6/10

Ahmedabad, Gujarat

2018-2022

### WORK EXPERIENCE

#### Maintainer of the SciPy Project

Triager, SciPy Organization

GitHub

March, 2021 – Present

- As of 2021, SciPy has over 11M downloads/month and 300,000+ downstream projects.
- Contributed 20+ enhancement, bug-fix, and documentation patches to SciPy on GitHub since May 2020.
- The SciPy Project: <https://github.com/scipy/scipy>
- My Work: <https://www.github.com/scipy/scipy/pulls/tirthasheshpatel>

#### Google Summer of Code, 2020

Student Developer, NumFOCUS

GitHub

June, 2020 – September, 2020

- Developed a higher level Gaussian Process API for the PyMC project.
- Committed  $\approx 30$  hours a week for 12 weeks.
- Project Link: <https://summerofcode.withgoogle.com/projects/6135416450711552>

### PROJECT WORK

#### Adding new distributions to the scipy.stats module for 1.6.0 release SciPy

May, 2020 – October, 2020

- Added the negative hypergeometric and multivariate hypergeometric distributions in the scipy.stats module.
- Negative hypergeometric distribution: <https://github.com/scipy/scipy/pull/12170>
- Multivariate hypergeometric distribution: <https://github.com/scipy/scipy/pull/12839>

#### Searching in AI Artificial Intelligence, A Modern Approach

January, 2020 – February, 2020

- Created and explained animations for various search algorithms in Python. Published in Analytics Vidhya
- See Article: <https://medium.com/analytics-vidhya/searching-in-ai-e05973068c8e>
- GitHub Project: <https://www.github.com/tirthasheshpatel/Searching-in-AI>

#### Facial Composites Bayesian Methods for Machine Learning

February, 2019 – June, 2019

- Developed a Variational Autoencoder to generate forensic faces.
- Used bayesian optimization for quick search of the victim.
- Google Colab: <https://colab.research.google.com/drive/1bD19DmcVcvw5mJ7nf1Rq41a87fy0Tcd?usp=sharing>

### ARTICLES

#### HandCrafting an Artificial Neural Network in pure NumPy Towards Data Science, A Medium Publication

- Link: <https://towardsdatascience.com/handcrafting-an-artificial-neural-network-e0b663e88a53>

### ACHIEVEMENTS

#### Python Bronze Badge and 1500+ Reputation on Stack Overflow

- Profile: <https://stackoverflow.com/users/10177420/tirth-patel>