

BHAVYA BHATT

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EXPERIENCE

SOFTWARE RESEARCH INTERN

Siemens Technology and Services Pvt. Ltd.

Jun 2019 – Present Bengaluru, India

- Implemented four different types (Tensor Product Compositional, HOLE, ComplEx, QuatE) of Knowledge Graph embedding architectures in PyTorch.
- Proposed a model for learnable background non-euclidean geometry.

SOFTWARE RESEARCH INTERN

Siemens Technology and Services Pvt. Ltd.

Dec 2018 – Feb 2019 Bengaluru, India

- Processing internal service logs for building shift-right testing application.
- Used recurrent neural networks (LSTM) to predict most probable test cases which user can execute.
- Analyse the data for anomaly detection in the logs sequence dataset by probability estimation method.

SUMMER RESEARCH INTERN

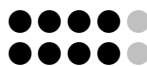
Tata Institute of Fundamental Research

Dec 2018 – Feb 2019 Mumbai, India

- Proposed a new approach for path integrals formulation of collapse models like GRW and other "all particle" dynamical theories.

SOFTWARE SKILLS

Programming Languages - C/C++, Python
Deep Learning



APPLIED SKILLS

- Python Libraries and Frameworks :
 - PyTorch (Advanced), TensorFlow, Keras
 - Git
- Applied Mathematics :
 - Mathematics of Machine Learning
 - Differential Geometry, Manifold Analysis
 - Stochastic Processes, Ito Calculus
 - Group Theory and Algebra (Basic)

POSITIONS OF RESPONSIBILITY

MENTOR

Summer of Code in Space, ESA

May 2019 – Present

- Assigned as honorary-project mentor in SOCIS(Summer of Code in Space) organized by ESA(European Space Agency) for The EinsteinPy Project.

EDUCATION

B.Tech (Computer Science Engineering)

Indian Institute of Technology, Mandi

2016-2020 Mandi

- CGPA: 8.06/10

CBSE (Higher Secondary)

MDS Public School

2016 Thokar, Udaipur

- 93.5%

CBSE (Matriculation)

St. Gregorios. Sen. Sec. School

2014 Ayar, Udaipur

- CGPA: 9.6/10

PROJECTS

THE PYGLOW PROJECT

- Founder of PyGlow - A Python package for information theory of deep learning.
- Package is a part of ongoing final year major technical project in the field of "Mathematics of Deep Learning".
- The project demands the need for exploring cross field topics from information theory, statistical physics, group theory and complexity theory. Aim is to experiment with these ideas in practice.
- GitHub Repo: <https://github.com/spino17/PyGlow>
- Package available on PyPI at: <https://pypi.org/project/PyGlow/>

THE EINSTEINPY PROJECT

- Co-Founder of EinsteinPy - A Python package for numerical relativity.
- Partly sponsored by ESA(European Space Agency).
- Soon to be a sub-organization under OpenAstronomy.
- GitHub Repo <https://github.com/einsteinpy/einsteinpy>

PUBLICATIONS

- Work at TIFR, Mumbai on path integrals for all particle dynamical theories resulted into a paper "path integrals, spontaneous localization and classical limit". <https://arxiv.org/abs/1808.04178>.