Manjunath **Bhat**

Physicist · Data Scientist

"NAGESH",1-4-31A, 10th Cross Road, Gundibail,Udupi, 576102, Karnataka, India

(+91) 9742910965 | manjunathbhat61@gmail.com | m-bhat.github.io | M-Bhat | m-bhat

Hardworking and passionate job seeker with strong organizational skills eager to secure Data Scientist position. Competent in mathematics, statistics and python. Ready to help team achieve company goals.

Education

Adam Mickiewicz University — *Poznan, Poland*

Ph.D in Physics — *Jan. 2018 - PRESENT*

Manipal University — *Manipal, India*

M.Sc in Physics — *Jul. 2010 - Nov. 2012*

Mangalore University — *Mangalore, India*

B.Sc (Physics, Mathematics, Computer Science — *Jun. 2007 - Jun. 2010*

Experience

Academic project

Sales Data analysis using python

- Analyzed 1 year sales data of a store using pyhton pandas library.
- Performed data cleaning to account for missing or invalid values.
- Performed exploratory data analysis on the data.
- Data was visualized by plotting the results using matplotlib library in python

Academic project

Deep Learning Project: Convolutional Neural Network using Tensorflow

- Built a convolutional neural network (CNN) using Tenserflow, and Keras libraries.
- Trained CNN using thousands of images of dogs and cats.
- Predicted whether a single image is a cat or a dog.

Academic project

Deep Learning Project: Artificial Neural Network using Tensorflow and Sklearn

- Built anartificial neural network (ANN) using Tenserflow, and Keras libraries.
- Used the Churn Modeling dataset, (which contains details of bank customers) to train this ANN model.
- The dataset was first preprocessed using the LabelEncoder module from the Sklearn library to encode the gender category data, and then using OneHotEncoder to encode the country categorical data.
- Predicted whether a customer is going to stay with the bank or not.

Academic project

Logistic Regression and Pricipal Component Analysis (PCA)

- Applied PCA to the Wine dataset.
- Performed Logistic regression using Sklearn.
- Result was visualized by plotting the results using matplotlib library in python

Adam Mickiewicz University *Poznan, Poland*

PH.D RESEARCHER *Jan. 2018 - Dec. 2022*

- Conducted research in the field of Lattice Quantum Chromodynamics (Lattice QCD).
- Developed a C program to obtain Lattice data from supercomputer.
- Devoloped an analysis code to analyze the data using different statistical analysis techniques.
- Published 2 scientific articles based on the analysis in reputed scientific journals.
- Presented research findings at international conferences.
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St. Philomena College *Puttur, Karnataka, India*

JUNIOR RESEARCH FELLOW *Apr. 2015 - Aug. 2017*

- Worked and conductued research in a BRNS funded project.
- Developed a FORTRAN program to calculate mass of mesons.
- Analyzed data to fit theoretical model using python numpy, scipy and pandas libraries.
- Published 3 scientific articles based on the analysis in reputed scientific journals.
- Presented research findings at local and international conferences.

S.R PU College *Hebri, Karnataka, India*

LECTURER IN PHYSICS *Apr. 2014 - Apr. 2015*

Bhandarkars' College *Kundapur, Karnataka, India*

LECTURER IN PHYSICS *June. 2013 - Mar. 2014*

Manipal University *Manipal, India*

M.SC RESEARCH PROJECT *Jul. 2011 - Nov. 2012*

- Developed a FORTRAN code to calculate half-lives of super heavy elements.
- Analyzed data to fit to a theoretical model.
- Predicted half-lives of super heavy elements with good accuracy.

Skills

- C/C++
- Python (Pandas, numpy scipy)
- Machine Learning
- Mathematica
- Data Analysis
- Quantitative Analysis
- SQL

Publications

- Continuum limit of parton distribution functions from the pseudo-distribution approach on the lattice, Manjunath Bhat, Wojciech Chomicki, Krzysztof Cichy, Martha Constantinou, Jeremy R. Green and Aurora Scapellato,Phys. Rev. D 106, 054504(2022), arxiv:2205.07585[hep-lat].
- Flavor nonsinglet parton distribution functions from lattice QCD at physical quark masses via the pseudodistribution approach, Manjunath Bhat, Krzysztof Cichy, Martha Constantinou and Aurora Scapellato, Phys. Rev. D 103, 034510(2021), arXiv:2005.02102[hep-lat].
- Mass spectra and decays of ground and orbitally excited $c\bar{b}$ states in non relativistic quark model, Antony Prakash Monteiro, Manjunath Bhat and K. B. Vijaya Kumar, arXiv:1607.07594v2 [hep-ph], Int. J. Mod. Phys. A **32**, 1750021(2017) DOI: 10.1142/S0217751X1750021X.
- $c\bar{b}$ spectrum and decay properties with coupled channel effects, Antony Prakash Monteiro, Manjunath Bhat and K. B. Vijaya Kumar, Phys. Rev. D 95, 054016(2017) arXiv:1608.05782v2 [hep-ph], DOI: 10.1103/PhysRevD.95.054016.
- Effects of coupled channels on $c\bar{b}$ mass and decays in NRQM with OGEP, Manjunath Bhat, Antony Prakash Monteiro and K. B. Vijaya Kumar, International Journal of Modern Physics E **26**, (2017)1750037, DOI:10.1142/S0218301317500379

Honors & Awards

2018 **Ph.D fellowship** , National Science Center *Poland*

2015 **Best poster award** , 60th DAE Symposium on Nuclear Physics *Puttaparthi, India*

2015 **Junior Research Fellowship**, St. Philomena College *Puttur, India*