

RISHABH SOLANKI

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OBJECTIVE

Physics Graduate with expertise in numerical simulations, machine learning, and data analysis. 5+ years of experience in Python and Fortran with a track record of performance optimization and problem-solving. Seeking a challenging role to develop and drive business results through data insights.

EDUCATION

University of Massachusetts Dartmouth, Master of Science in Physics Expected May 2023
GPA 4.0 Relevant Coursework: Linear Algebra, Computational Physics, and Data Structures.

University of Petroleum and Energy Studies, Bachelor of Science in Aerospace Engineering 2018
GPA 3.4

EXPERIENCE

Graduate Research Assistant September 2021 - present
UMass Dartmouth MA, USA

- Developing and implementing novel modules for numerical method based solver using Python and Fortran. This involves researching and exploring different approaches, and adapting and optimizing the modules to meet the requirements of the project.
- Contributing to the code review, testing, and documentation of numerical solvers, improving the reliability and functionality of the solvers.
- Experienced in utilizing Linux command line interface for data manipulation and scripting.

Research Intern August 2018 - September 2019
Instruments Research and Development Establishment Dehradun, India

- As a research intern at Instruments Research and Development Establishment, I worked with a team to develop an end-to-end process/pipeline that included data collection, harmonization, and visualization using Java and MATLAB.
- Leveraged expertise in Numpy/Scipy and Pandas to conduct comprehensive analysis of vast log data, resulting in optimization of processing pipeline performance.

TECHNICAL PROJECTS

Supernovae Classifier December 2021 - August 2022
Implemented machine learning and numerical computing techniques in Python to classify supernovae, including reading FITS file data, extracting features and labels, training and testing the classifier.

Electricity Usage Analysis November 2022 - January 2023
Developed a detailed electricity usage analysis code in Python using Tensorflow and Pandas to track usage in hourly intervals and identify consumption patterns. It also suggests usage optimization strategies and includes monitoring of solar panel energy production.

SKILLS

Technical Skills	Python, Java, Fortran, SQL
Frameworks	Numpy, Pandas, Tensorflow, Matplotlib
Software & Tools	Git, Linux, MATLAB

EXTRA-CURRICULAR ACTIVITIES

- Member of Society of Physics Students
- Hikes, Badminton and Website design