RISHABH SOLANKI

+1(508) 717-5407
rsolanki@umassd.edu ◇ LinkedIn ◇ rishabh01solanki.github.io

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. Also created software release candidates and qualified software on virtual, simulated environments.
- Experienced in utilizing Linux command line interface for software integration, qualification and automation tasks.

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

- Actively contributed to the development of a comprehensive data processing pipeline using Java and MATLAB. Collaborating with a multidisciplinary team, I helped optimize the end-to-end process, enhancing the efficiency and accuracy of our research outcomes.
- 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
Utilized machine learning and numerical computing techniques in Python to successfully classify supernovae by reading FITS file data, extracting features and labels, and training and testing the classifier. This involved applying analytical skills to do system-level design and reliability testing.

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