**Profile Summary**

Over ten years of research experience in computational materials modeling, data science and statistical analysis. Hands-on experience in programming in Python, R, Fortran, C/C++ and performing mathematical and statistical analysis, data mining and machine learning. Excellent interpersonal, oral and written communication skills, ability to quickly learn new tools and techniques to solve problems.

**Professional Experience**

* **Research Associate, Los Alamos National Laboratory** (09/2013-Present): Machine learning, Deep learning, Materials informatics, Data mining, Statistical analysis and prediction to discover new materials with targeted property, Microstructure reconstruction of polycrystal materials from X-ray diffraction images, Structure-properties relationship
* **Postdoctoral Research Associate, Rutgers University** (09/2010-08/2013): Materials modeling and simulations, Data analysis and visualization, Scientific presentations and publications
* **Graduate Research Assistant, JNCASR, Bangalore** (08/2005-08/2010): Development of materials modeling simulation programs, Data analysis /visualization, Presentation and publications.
* **Summer Intern, General Electric, Bangalore** (06/2009-08/2009): Finite Element Modeling of metal/oxide interface to enhance conductivity at interface and understand oxygen diffusivity in metals

**Education**

* **PhD in Physics (2010):** Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore, India
* **MSc in Physics (2005):** Banaras Hindu University, Varanasi, India
* **BSc in Physics, Mathematics and Computer Science (2003):** Gorakhpur University, Gorakhpur, India

**Programming and Data Science Skills**

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| * **Python, R, Fortran, C/C++** * **Numpy, Scipy, Pandas, Matplotlib, Seaborn** * **Scikit-learn, Keras, Tensorflow** * **Big Data, Hadoop Ecosystem** * **MapReduce and Apache Spark** * **SQL/PostgreSQL** | * **Data Analysis, Machine Learning, Deep Learning** * **Statistical Analysis and Uncertainty Quantification** * **Recommender Systems, NLP** * **Classification and Regression Analysis** * **HPC, AWS, Cloud computing** * **Mathematica, Matlab, MS Office, Latex** |

**Computational Materials Modeling/Physics Skills**

* **Multiscale Modeling, Atomistic Simulations (MD/MC), Density Functional Theory**
* First-principles Modeling and Simulations of Metals and Alloys, Structure-Property Relationship
* First-principles DFT Software: **VASP, Quantum Espresso, Abinit, Siesta**
* Molecular Dynamics Software: **LAMMPS, Gromacs, NAMD, FERAM, Materials Studio**
* Considerable domain **knowledge of Physics and Materials Science**

**Transferable and Soft Skills**

* **Critical thinking, Problem solver, Attention to details, excellent time/project managements skills**
* Expertise in preparing **technical reports, publications and presentations**
* Team Player: **Enjoy working with people of different backgrounds and interests**