APAAR SHANKER

College of Computing, Georgia Tech

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https://github.com/materialsinnovation

RESEARCH STATEMENT

Application of Machine Learning and Big Data techniques to develop predictive process-sturcture-property linkages for automation and accelaration of material manufacturing cycle.

PROJECTS

PyMKS Python Project Development

NIST, Georgia Tech

May 2017 – Ongoing Gaithersburg, MD

- https://github.com/wd15/fmks

High Throughput Selection of 2D Nanoporous Zeolites

NSF, Georgia Tech

Sep 2016 – ongoing Georgia Tech, Atlanta

- Controlled.

Surrogate, Predictive models for Microstructure Evolution

NIST, Georgia Tech

Jan 2017 – ongoing Georgia Tech, Atlanta

Modeling Alloy Solidification in presence of Convection

IISc

Sep 2014 – May 2016 Bangalore, India

- Developed a multiphysics PDE solver over 15 months to simulate alloy solidification in presence of fluid flow.
- Coded entirely in C,with full parallelization implemented using **MPI** and run on 1000 processors at the supercomputing facility.

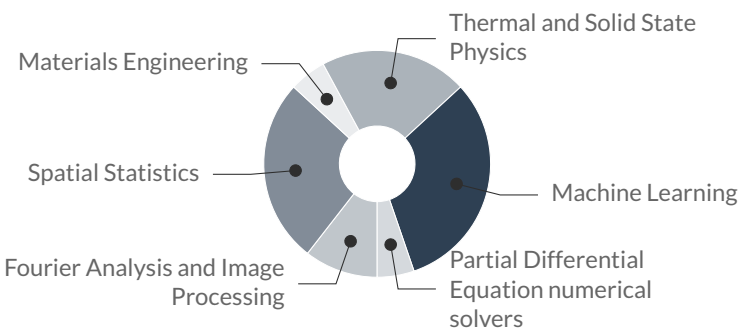
Gas Turbine Blades Repair

GE India Technology Center

May 2014 – Sep 2014 Bangalore, India

- Modified repair protocols for the industrial Gas Turbine frames based on structural and material analysis of components resulting in savings to the tune of $2 million for the company.

CORE RESEARCH AREAS



EDUCATION

P.h.D. in Computational Science and Engineering

Georgia Institute of Technology

Aug 2016 – ongoing

M.S. and B.S. in Materials Science

Indian Institute of Science, Bangalore

Aug 2011 – June 2016 First Class

CURRICULARS

J. N. Tata Endowment Scholarship for Higer Education Awarded in 2016

INSPIRE Scholarship
Awared by Dept. of Science and Tech., Govt. of India, 2011-2016

EXTRACURRICULARS

Senator, Georgia Tech Student Government Assoc.

Executive Team Member, Event Commite at Georgia Tech SGA

SKILLS/STRENGTHS

Machine Learning: Sklearn, Keras, Torch
Phasefield Modeling and Fluid Dynamics
Molecular Dynamics
Parallel Programming-MPI
Functional Programing

Linux Python C Matlab/Ocatve

INTERESTS/HOBIES

History Economics Badminton

CONFERENCES

CHIMAD, Phasefield V

Northwestern University

Aug 2017