Sriram Krishnaswamy

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EDUCATION

UNIVERSITY OF FLORIDA
MS Mechanical Engineering
May 2016 | Gainesville, FL
Cum. GPA: 3.06 / 4.0

BITS, PILANI
MSc Chemistry
BE Mechanical Engineering
May 2014 | Hyderabad, India
Cum. GPA: 7.54 / 10.0
Major GPA: 8.07 / 10.0

DAV BOYS, GOPALAPURAM
Grad. May 2009 | Chennai, India

LINKS

Github:// **sriramkswamy**
LinkedIn:// **sriramkswamy**
SSL:// **Stochastic Systems Lab**

COURSEWORK

GRADUATE
Computational Fluid Dynamics*
Uncertainity Quantification*
Turbulence*
Fluid Mechanics II
Fluid Mechanics I
Gas Turbines and Jet Engines
Incompressible flow
Control Systems (***TA x1***)

UNDERGRADUATE
Fluid Mechanics
Numerical Methods
Applied Thermodynamics
Mechanics of Solids
CAD and FEA

SKILLS

PROGRAMMING
Experienced:
C++ • Python • MATLAB • LaTeX
Intermediate:
Shell • C • Octave
Amateur:
Java

LIBRARIES
Boost • Intel MPI • Intel OpenMP

SOFTWARES
ICEM CFD • FLUENT •
ANSYS • OpenFOAM

EXPERIENCE

STOCHASTIC SYSTEMS LABORATORY | Student Assistant
May 2015 - Present | Gainesville, FL
- Worked with **Dr. Yifei Sun** and **Prof. Mrinal Kumar** to create a Parallel Fokker-Planck equation solver based on CPD Tensor methods.
- Simulated a 4 dimension 2 body problem using the **Boost uBLAS library**

Nov 2014 – April 2015 | Gainesville, FL
- Predicted the optimal cost and allocated appropriate risks for reservoir in a multi-reservoir system.
- Simulated the model using Stochastic optimization and Chance constrained programming in MATLAB

THERMAL TURBOMACHINES LABORATORY | Honors Thesis
June 2013 – May 2014 | Chennai, India
- Automated the CFD analysis of airfoils using Python and Scheme.
- Implemented intelligent data interpretation and post-processing.
- Used it analyze the effects of Synthetic jet active flow control in airfoils.
- Collaborated with Shubham Jain to analyze the effects of Gurney Flap.

INDIAN INSTITUTE OF SCIENCE | Summer Intern
May 2012 – July 2012 | Bangalore, India
- Vibrational analysis of human body based on Lumped parameter models.
- Simulated the effects aircraft seat ejection in SimuLink and MATLAB.

PROJECTS

CANSAT 2013 | Team Leader
Nov 2012 – June 2013 | Abilene, TX
- Led Team Varuna - the first team from BITS, Pilani to a successful launch.
- Scored 97.15% in the Critical Design Review
- Raised a sponsorship of $1,500 and presented the design to the Director of ISRO (Indian Space Research Organization)

CFD PYTHON SOLVER | Independent Project
June 2015 – Present | Gainesville, FL
- Python based solver for solving 2D Heat equation.
- Based on the **CFD course** by Prof. Lorena Barba
- Parallelizing the code using **mpi4py** package.

CFD COURSE PROJECTS | As a part of CFD coursework
Sep 2015 – Present | Gainesville, FL
- Python based central difference scheme to solve the diffusion equation

PUBLICATIONS

[1] S. Jain, S. Krishnaswamy, and N. Sitaram. Computational investigations on the effects of gurney flap on airfoil aerodynamics. *International Scholarly Research Notices*, 2015.

[2] S. Krishnaswamy, S. Jain, and N. Sitaram. Exhaustive analysis of gurney flap as a passive control mechanism. In *Fluid Mechanics and Fluid Power, IIT Kanpur*, 2014.