

Sriram Krishnaswamy

sriramkrishnaswamy.github.io | +1 (352) 872-8712 | sriram.krish@ufl.edu

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

May 2009 | Chennai, India

LINKS

Github:// [sriramkrishnaswamy](#)

LinkedIn:// [sriramkrishnaswamy](#)

SSL:// Stochastic Systems Lab

COURSEWORK

GRADUATE

Computational Fluid Dynamics*

Uncertainty Quantification*

Turbulence*

Fluid Mechanics I & II

Gas Turbines and Jet Engines

Incompressible flow

Control Systems (**TA x1**)

UNDERGRADUATE

Numerical Methods

Applied Thermodynamics

Mechanics of Solids

CAD and FEA

SKILLS

PROGRAMMING

Experienced:

C++ • Python • MATLAB

L^AT_EX •

Intermediate:

Shell • C • Octave

Intermediate:

Java • Fortran

LIBRARIES

Boost • Intel MPI • 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 | Project Assistant

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 to analyze the effects of Synthetic jet active flow control in airfoils.
- Collaborated with Shubham Jain to analyze the effects of Gurney Flap.

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)

COMPUTATIONAL FLUID DYNAMICS | Independent Projects

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.

Sep 2015 – Present | Gainesville, FL

- Central difference scheme to solve the diffusion equation
- First and second order upwind schemes to solve the convection-diffusion equation.

May 2012 – July 2012 | Hyderabad, India

- Modelled NACA4421 airfoil using ANSYS and ICEM CFD for a term project.
- Analyzed the flow separation spectrum to identify the most effective point for flow control.

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.