

Sujit Shivaprasad

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EDUCATION

PURDUE UNIVERSITY

BS AERONAUTICAL AND
ASTRONAUTICAL ENGINEERING
May 2017

WESTLAKE HIGH SCHOOL

May 2013 | Austin, TX

LINKS

LinkedIn: [sujitshivaprasad](#)

Github: [sujitshivaprasad](#)

COURSEWORK

UNDERGRADUATE

Aeromechanics
Thermodynamics
Linear Algebra
Differential Equations
Aerospace Systems Design
Mechanics of Materials
Fluid Mechanics
Structural Analysis
Signals and Systems
Control Systems Analysis
Dynamics and Vibrations
Flight Dynamics
Data Science

SKILLS

PROGRAMMING

Experienced in:

C • C++ • Python
Java • MATLAB/Simulink • Ada
Fortran • Bash
Solidworks • CATIA

Familiar:

SQL • ANSYS Fluent
HTML • Visual Basic
Abaqus • LS-Dyna •

ACTIVITIES

- Purdue Space Day
- Purdue Zero Gravity Flight Experiments
- Purdue EPICS

EXPERIENCE

CONTROL SYSTEMS ENGINEER | ROLLS-ROYCE

July 2017 – Present | Indianapolis, IN

- Systems/Software engineering for civil and defense aircraft engine control systems meeting DO-178/ARP-4754 guidelines.
- Solved fleet issues by duplicating engine problems, and proposing software solutions for the Rolls-Royce T56 engine E-2D Advanced Hawkeye application.
- Developed requirements, analyzed engine control system software, and simulated aircraft behavior on a real-time simulator for validation.
- Modeling & Simulation engineering for real-time simulators intended for hardware-in-the-loop FADEC verification.

SIMULATION ENGINEERING CO-OP | KINETIC VISION

May 2016 – Aug 2016 | Cincinnati, OH

- Finite Element Analysis (FEA) of various consumer products using Abaqus and LS-Dyna operated on Linux servers on High-Performance Computing systems.
- Experience meshing using Altair HyperMesh and CATIA.
- Developed FEA automation tools and algorithms such as meshing and exporting simulation results with Python scripts, utilizing various python packages such as NumPy and SciPy.

INTERN | CENTER FOR SPACE RESEARCH, THE UNIVERSITY OF TEXAS AT AUSTIN

May 2012 – Aug 2012 | Austin, TX

- Analyzed and investigated geographical data from the IceSat-1 satellite to optimize the successive satellite.

RESEARCH

MACHINE-TO-MACHINE LAB | PURDUE UNIVERSITY

Nov 2015 – May 2016 | West Lafayette, IN

Under the supervision of Dr. Eric Matson, developed an autonomous drone to analyze chemical plumes in explosions and relayed the information to a ground station using the Pixhawk autopilot.

AIR TRANSPORTATION MANAGEMENT LAB | PURDUE UNIVERSITY

May 2014 – Dec 2014 | West Lafayette, IN

Under the supervision of Dr. Dengfeng Sun, conceptualized and designed a flight simulation tool for optimizing traffic flow management using parameters such as aircraft model and ground speed to calculate flight time and fuel burn.