Tarun Punnoose

Website: www.punnoo.se
Email: punnoose@stanford.edu

EDUCATION

STANFORD UNIVERSITY
Mechanical Engineering
Expected Jun 2020 | Stanford, CA
Cum. GPA: 3.88/4.0
Activities
- Stanford Solar Car
- Stanford Climbing Wall

THOMAS JEFFERSON HIGH SCHOOL FOR SCIENCE AND TECHNOLOGY
Graduated Jun 2016 | Alexandria, VA
Activities
- Excelsior Aerospace Club
- Science Olympiad
- Hackathons

COURSEWORK

COLLEGE
- AA118N - How to Design a Space Mission
- EE101A - Circuits
- ENGR 30 - Thermodynamics

HIGH SCHOOL
- AP Physics C
- Prototyping Senior Research
- Digital/Analog Electronics
- Parallel Computing

SKILLS

GENERAL
- CNC Machining
- Digital/Analog Electronics
- HAM Radio License
- Student Pilot

PROGRAMMING
- Java
- C
- Python
- HTML/CSS/JavaScript

CAD/CAM
- SolidWorks
- Fusion 360

EXPERIENCE

STANFORD SOLAR CAR PROJECT | Mechanical Team
Sept 2016 – Present | Stanford, CA
- Main CNC machinist for the team
- Machined hardpoints, linkages, inserts, fixtures and other parts to tight tolerances
- Helped construct and manufacture various mechanical systems on the car
- Designed and manufactured canopy latching system
- Created fixture setup to accurately assemble topshell chassis
- Helped complete composite layups for the car's aerobody

TIGER INNOVATIONS | Intern
Jun 2016 – Sep 2016 | Herndon, VA
- Tested and debugged an issue with the RF IC of a small satellite
- Modified and checked multiple RF IC system parameters
- Wrote software to test fixed RF system

NASA GODDARD | Innovation Lab Intern
Jun 2015 – Jul 2015 | Greenbelt, MD
- Helped design and build hardware surrounding the robotic arm
- Worked with machinists and technicians to create parts
- Created an image processing program with OpenCV that gave target coordinates to the arm
- Completed the lower level electronics and programming to interface with a small scale robotic arm

US NAVAL OBSERVATORY | Astronomical Applications Intern
Jun 2014 – Aug 2014 | Washington, DC
- Developed and tested astronomical data calculators for the data services page
- Completely remade the Phases of the Moon Calculator and the Complete Sun and Moon Data for One Day services
- Made these two data services into APIs that return JSON
- http://bit.ly/AAMoonPhase and http://bit.ly/AARiseSet
- Used 6" refracting telescope to measure sunspot number for AAVSO

TJ EXCELSIOR AEROSPACE CLUB | Co-President
Sep 2014 – Jun 2016 | Alexandria, VA
- Led club in aerospace related competitions, projects, and outreach activities
- Compete in college level rocketry competition, Battle of the Rockets, Mars Rover Challenge
- Led rover (deployed from rocket at apogee) design and construction team
- Part of rocket design, build, and assembly team
- Led an ambitious UAS applications initiative

SMITHSONIAN AIR AND SPACE MUSEUM | Explainer (staff)
Oct 2013 – Present | Chantilly, VA
- Educate the public about aeronautics and space
- Engage visitors with hands-on activities
- Started as volunteer, promoted to staff in 2015