Arjun Dhawan

2019 Summer Internship Applicant

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SUMMARY

Driven, creative, and hands-on student with a passion for excellence, learning, and attention to detail. Record of accomplishment in STEM projects involving the rapid development of new and innovative technologies.

EDUCATION

Stanford University *B.S. Electrical Engineering and Mechanical Engineering; Class of 2021* **|** GPA 3.71

Completed Relevant Courses: Programming Methodologies (Java), Programming Abstractions (C++), Computer Systems from the Ground Up (C), Chemical Principles Accelerated, Mechanics, Electricity and Magnetism, Vector Calculus for Engineers, Ordinary Differential Equations for Engineers, Introduction to Solid Mechanics, Foundations of Product Realization, An Intro to Making: What is EE.

In progress: Dynamics, Engineering Thermodynamics, Circuits 1, Signal Processing and Linear Systems 1

Signature School *10th, 11th & 12th Grade*; **Castle High School** *9th Grade* **|** GPA 4.35 May 2017

Relevant Coursework: AP Calculus BC, AP Physics I, AP Chemistry, AP Biology, IB Physics SL, IB Biology HL, IB Chemistry HL; National Merit Commended Scholar; AP/IB Scholar; Salutatorian

EXPERIENCE

Stanford Solar Car Sept 2018-Current

Mechanical Team Member

Part of the mechanical engineering team that designs, builds, and races a solar car across the Australian Outback. Currently in charge of designing and implementing a new motor cap and braking system.

Matrix Design Group LLC July 2018-Sept 2018

Engineering Intern, Newburgh

Researched, developed, and rapidly prototyped a low cost, simple, and scalable solution for tracking people and machines around other machines using computer vision and object detection. Specifically, implemented a reliable IMU and developed models for object recognition. This technology is integral to surface mining safety applications.

Ciholas Inc. May 2015-Aug 2015

Summer Intern, Newburgh

Created a tracking system capable of locating objects outside a central area covered by sensors by utilizing ultrawide band radio wave sensor technology. This technology is useful for tracking emergency personnel, miners, or even individuals in evacuation situations.

PROJECTS

Breaking an Azeotrope May 2016 - Jan 2017

Investigated the possibility of breaking a tetrahydrofuran methanol azeotrope using carbon nanoparticles and light waves rather than temperature and pressure. Research Credit at University of Southern Indiana, with Prof. Jeffery Seyler.

A Warning System Based on Sensor Technology to Detect Distracted Driving May 2014 - May 2015

Developed and filed patent for a device capable of recognizing distracted driving behaviors (cognitive, visual, manual) and alerting the driver of the risk at hand. ***USPTO Patent Filed "Driver Focus Analyzer"*** *Application No. 15/257,153. Sept 2016*

Object Recognition for the Visually Impaired May 2013 - May 2014

Developed and filed patent for a device using sensor technology and computer aided vision to recognize an object of interest and guide a visually impaired person to it without a human aide. ***USPTO Patent Filed "Object Recognition for the Visually Impaired"*** *Patent Application Publication US 2016/0260353 A1. Mar 2015*

SKILLS

ANSYS, Arduino, Raspberry PI, C, C++, Java, Matlab, Python, Solidworks, Oscilloscope, Soldering, SPI, i2c.

ACTIVITIES

Stanford Bhangra, Financial Officer Sept. 2017 to Current

High energy and high impact Indian folk-dance group that competes at a national Level. Part of the leadership team.

Stanford Social Entrepreneurial Student Association Sept 2018 to Current

Club developing Stanford's social entrepreneurship ecosystem

AWARDS

National Junior Science and Humanities Symposium

1st Place Physical Sciences (2015); 2nd Place Engineering (2016) ; IN State 1st Place 2015 and 2016.

2016 Youth of the Year, *Youth Resources*

Selected by Youth Resources Board of Directors for impact to community with volunteerism, leadership, and service.

Intel International Science and Engineering Fair Finalist (2014, 2015).

Hoosier State Science and Engineering Fair 7th, 8th, 9th and 10th grade 1st place State award.