

Ashvin Nagarajan

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Education:

University of California, Los Angeles (UCLA)

B.S., Materials Science and Engineering GPA: 4.00 / 4.00 Graduation: June 2022

James Caldwell High School, Caldwell, NJ (JCHS)

Class Rank: Valedictorian GPA: 100.1702 / 100 September 2014 – June 2018

Selected Projects:

Booz Allen Hamilton | Software Engineer

June 2019 – Present



- ◆ Developed a data visualization tool for a containerized cluster environment with Kubernetes
- ◆ Provides insight on the health and performance of a network with clear applications in cyber security, project management, CI/CD pipeline, systems engineering, and education
- ◆ Customizable user interface and dashboard tailored to the needs of enterprise clients

Bruin Racing: Super Mileage Vehicle | Research and Development Lead

Sept 2018 – Present



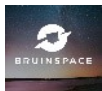
- ◆ Designed a gas vehicle with efficiency of 800+ mpg and electric vehicle with 130+ mi/kwh
- ◆ Led a team of 6 to develop unique data acquisition system and mechanical failure simulations
- ◆ Manufacturing structural components for the vehicle out of carbon fiber, plastics, and aluminum
- ◆ Developing fuel burn algorithm with real time analysis of data from battery and motor



Golden State Racing | Composites and Aerodynamics Lead

Sept 2018 – Present

- ◆ Comprehensive design and manufacturing process of Solar Car from concept to manufacturing
- ◆ Designed for entry in Bridgestone 2019 World Solar Challenge, a 3000 km race in Australia
- ◆ Collaborated individually with Northrop Grumman structural engineers for technical consulting
- ◆ Simulated composite body designs with CFD to optimize aerodynamics
- ◆ Ran FEA on composite body to inform chassis design



Bruin Space: Reach Project | Structures team

Sept 2018 – Present

- ◆ Produced a functioning CubeSat to transmit live data from 30,000 feet altitude
- ◆ Drafted bus design to accommodate modular payload including GPS, radio, and sensors
- ◆ Fashioned the structure and components using 3D modeling and machining

Technical Skills:

SolidWorks, NX, AutoCad for 3D Modeling
Web Development – React, JQuery, D3
Finite Element Analysis on Composites

Star CCM for Computational Fluid Dynamics
Metal Machining and Woodworking
Data analysis and Statistics

Volunteer Experience:

Sciotutors.com | Co-Founder

Launched July 2018

- ◆ Developed online application for students to connect with peer tutors
- ◆ Devised and coded website using HTML/CSS and JavaScript
- ◆ Implemented in the Caldwell Board of Education for over 800 students

The Bruin Experiment | Mentor

Sept 2018 – Present

- ◆ Volunteering to teach middle school students science in underserved Los Angeles communities
- ◆ Mentorship for students in research and engineering projects of their own choosing
- ◆ Organization of a science fair symposium hosted by UCLA to display the final projects

Awards and Honors:

Engineering Dean's List: *Fall 2018 – Present*
Eagle Scout – Boy Scout Troop 6: *June 2016*
NMSC National Merit Scholar: *May 2018*

1st Place IdeaHacks Hackathon – *Feb 2018*
National Honor Society: *Feb 2016 – June 2018*