

Ashvin Nagarajan

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Education:

University of California, Los Angeles (UCLA) 2018 - 2022

B.S. Materials Science and Engineering Cumulative GPA: 4.00 / 4.00

Coursework: Solid State Physics, Thermodynamics, Electromagnetics, Multi-variable Calculus

Work Experience:

Booz Allen Hamilton | Engineering Internship 2019

Implemented Tools/Skills: Docker, Kubernetes, React, Redux, JS, Bash, Git, AWS, Agile, Product

- ◆ Developed proprietary data visualization tool for Docker environments with Kubernetes
- ◆ Provided insight on the health and performance of a cluster on AWS through Kubernetes APIs
- ◆ Established a business model with customizable UI and subscription service for any existing clients
- ◆ Earned 1st Place Overall out of 80+ intern teams judged by executive leadership at McLean HQ

Center for Heterogeneous Integration and Performance Scaling | Researcher 2019 – *

Implemented Tools/Skills: C, C++, Circuit Design, PCB Fabrication, B.L.E., N.F.C., MCUs

- ◆ Researched and fabricated a prototype gas sensor to detect harmful gasses like CO, CH₃, CO₂
- ◆ Created communication protocol for analog and digital circuits using BLE and NFC
- ◆ Programmed MCUs in C to optimize data transfer over multiple ADC channels at 2kHz frequency

Selected Projects:

Super Mileage Vehicle | Research and Development Lead 2018 – *

Implemented Tools/Skills: React, Redux, Firebase, PCB Design, MCUs, Python, Arduino, FEA, Agile

- ◆ Developed vehicle data acquisition system w/ embedded sensors for real time analysis of vehicle
- ◆ Created live driver interface to monitor and analyze data in real time from anywhere
- ◆ Implemented scalable design to easily adapt sensors for any race condition or trial
- ◆ Designed rigorous SOPs to measure efficiency and ensure quality of improvements made on car

Creative Labs @ UCLA | Engineering Project Manager 2019 – *

Implemented Tools: MCUs, Circuits, React Native, Solidworks, Machining, Google Home API

- ◆ Led team of 11 engineers to develop IoT coffee maker that adds customizability and convenience
- ◆ Developed a functioning prototype of an IoT bean bag device with embedded lights and chargers
- ◆ Integrated mobile app and Google Home API to control all hardware functionality

Skills:

React, Redux, JavaScript, Git
Python, MATLAB, Java, C, C++
SolidWorks, NX, AutoCad
Structural and Composite FEA, CFD

MCUs and Embedded Systems
Analog and Digital Circuits, PCB design
Data communication and transfer protocol
Metal Machining and Woodworking

Awards and Honors:

1st Place IdeaHacks Hackathon
Disney Imaginations Semifinalist
Engineering Fellow – City Fellows Consortium
Eagle Scout – Boy Scout Troop 6

Valedictorian of JCHS Class of 2018
Engineering Dean List: 2018 – Present
NMSC National Merit Scholar: 2018
National Honor Society: 2016 – 2018