

DHARSHAN VISHWANATHA

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OBJECTIVE

A self-motivated, skilled and knowledgeable computer science student, who is seeking for an internship opportunity to learn, grow and gain hands-on experience.

EDUCATION

University of California, San Diego

BS, Computer Science

Expected June, 2021

- GPA 3.757
- Provost Honors

Pasadena City College

AS, Computer Science

June,

2019

- GPA 3.8
 - Dean's Honor for all semesters. Awarded Honors in Mathematics.
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SKILLS

C++: Most proficient and primarily used in (6) projects.

HTML/CSS/JavaScript: Self-taught to create my portfolio website and to showcase my projects.

Java/C#: Self-taught to explore building Android and iOS apps.

Linux/Git: Currently improving with frequent usage in my projects.

EXPERIENCE

CalTech FSAE

Oct 2019 - Dec 2019

- Worked with the team on building autonomous racecar.
 - Focused detecting cones and distance from Kinect's camera.
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PROJECTS

Ray Tracer (C++, Dec 2019)

- A simple Ray Tracer with basic geometry, lighting, reflection, and cubemap.
- Learned ray sphere, plane intersection, and using vector operations.

Cloth Simulation (C++, Sep 2019)

- A simple OpenGL cloth simulation that reacts to gravity and wind forces.
- Learned how Verlet Integration is used in graphics simulation and its importance.
- Implemented common physics objects such as springs and particles.

Octree/QuadTree (C++, Sep 2019)

- An accelerated spatial data structures, that enables fast lookup of 3d points and triangles.
- Drastically improved ray tracing time complexity between ray and triangle intersection.

ELocation (C#, Jul 2019)

- An android app that focuses on giving the user real time information of 100+ public buses across the United States.
- Learned about API requests and parsing the JSON object to represent the bus data.
- Learned about Google's API for displaying maps.