

# PRATHYUSH KATUKOJWALA

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## Education

### **University of California, Los Angeles | Expected Graduation Date: June 2019**

B.S. in Computer Science and Engineering | Cumulative GPA: 3.957/4.0 | Major GPA: 4.0/4.0

### **Westview High School | August 2011 to June 2015**

GPA: 4.51 | SAT: 2310

## Other Coursework

UCSD Extension Calculus for Scientists and Engineers (Multivariable Calculus), UTAustinX – UT.6.01x Embedded Systems, UC San DiegoX – CSE167x Computer Graphics

## Experience

### **Undergraduate Research** *January 2016-*

- Started working at the Laboratory for Embedded Machines and Ubiquitous Robots at UCLA.
- Current project is to create a web-based interface to rapidly design robots.

### **UCLA IEEE Micromouse** *September 2015-*

- Designed and built an autonomous robot that uses feedback control and the flood fill algorithm to navigate a maze.
- Built both a perf board prototype and a final PCB mouse with the software written in C++.

### **Raytracer** *Summer 2015*

- Written from scratch for a computer graphics course in C++. Supports sphere and triangle primitives as well as Phong shading, shadows, reflections, and lights.

### **SD Supercomputer Center AMBER Project** *Research Intern | June 2014 – August 2014*

- Extended functionality of a molecular dynamics software package using Fortran and ran simulations to optimize default settings.

### **Interspace 3D MMO**

- First developed a version of the game in Java using an existing game engine.
- When performance was inadequate, developed a custom engine in C++ by integrating graphics, physics, sound, UI and networking as a basis for the game.

### **First Robotics Competition Team 3341** *Systems Control Lead | August 2011 – June 2015*

- Served as the main programming and electronics lead for high school robotics team.
- Mentored newer students in electronics and software including Java and C++ fundamentals.

### **Cybersecurity** *Varsity Team Member to Vice President | 2012-2015*

- Placed first in the San Diego Mayor's Cup Finals competition in March 2013.
- Specialized in Linux security and held training sessions for less experienced members.

## Languages and Skills

C/C++, C#, Java, Bash, Unix, Python, Git, HTML, CSS, JavaScript, Intel Assembly, OpenGL, SQL, Emacs, Fortran, Unreal Engine 4, PCB design, soldering, microcontrollers.