# Rithvik Chuppala

US Citizen | 12th grader

#### **EXPERIENCE/LEADERSHIP**

## FRC Robotics - Head, Software Lead, Webmaster

**Head of Outreach/PR-** Valkyrie Robotics: Planned and volunteered for outreach events/demos at local elementary and middle schools

**Software Lead**- Monta Vista Robotics: Led and trained a group of 15 software students. Wrote code for several subsystems of the robot, delegated coding projects to other students, and organized and maintained code that went onto the robot from GitHub

**Webmaster**- Monta Vista Robotics: Regularly updated and maintained MVRT's award-winning website

## Science Olympiad - Engineering Captain

**Executive Officer**- Helped conduct meetings, handle logistics, plan for events, prepare members for competitions, and make decisions for the club.

**Engineering Captain** - Helped members from all 3 MVSO teams, by giving design and construction advice, helping test and prototype their devices, and managing costs and budgeting for the devices.

## Naval Postgraduate School - Research Intern

Worked on an Airfield Damage Assessment project that uses computer vision, UAV technology, and GPS navigation to localize and assess damage done on a damaged military air strip. Built an Android app that provides navigating capabilities to the drone, including waypoint navigation, manual flying, livestream video, and positioning data

## Huawei IOT Department- Intern

Built an Arduino Robot Arm, that picked up objects and placed them into containers, and an infrared sensor vehicle, that followed a beam of light, for the IOT Department of Huawei. Paid 100 dollars for exemplary work

## **EngAcademy- Founder and President**

Coordinated a hands-on engineering and physics program, making the curriculum and organizing its implementation at various schools and libraries..

Led a group of students who went to a local low-income middle school, and taught the children basic robotics and engineering concepts through a project-based curriculum

## MV Phys Eng-Director of Engineering

Conducted meetings and held presentations on hardware and engineering topics. I also mentored and tutored students for AP Physics, teaching concepts and holding review sessions before tests

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#### **EDUCATION**

Monta Vista High School 2015-2019(exp.)

GPA: 4.70 W(4.00 U/W) | SAT: 1600

Selected Coursework: AP Calc BC, AP Chemistry, AP Physics 1, APCS, AP Stats

### Foothill College and West Valley College

Coursework: CS 1A, CS 30A, CS 3A, Math 4C

#### **INDIVIDUAL PROJECTS**

**Security System:** DIY, rudimentary security system using Arduino and Open CV

#### Voice-Command Medical Assistant:

Listens to symptoms and would subsequently respond with a diagnosis using Raspberry Pi

#### **Voice-Command TurtleBot Simulation:**

A simulated robot that uses voice-command to move around a house using ROS and C++

#### **SKILLS**

**Programming Languages**: Java, Python, C++, C, HTML/CSS, JavaScript, PHP

**Tools:** Git, Web Development, Arduino, Raspberry Pi, Open CV

**Platforms: Android,** ROS, Arduino, WPI Lib, Android, Raspberry Pi

## **SELECTED AWARDS**

2017 FRC National Championships - 2nd Place in Division

2018 Regionals Science Olympiad- 3rd

2018 States Science Olympiad - 5th

2018 Regionals Sci Oly-Hovercraft-2nd

2017 States Sci Oly - Robot Arm- 5th

2017 Cal Cup Quiz Bowl- 1st Place JV

2015 Youth Focus Talent Competition-**Grand Champion**