

# RITWIK DUTTA

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## OBJECTIVE

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To use and develop my computer science skills in an environment that challenges me and facilitates further learning.

## EDUCATION

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Archbishop Mitty High School	2012 - 2016
Stratford Middle School	2009 - 2012
Millikin Elementary School	2003 - 2009

## SKILLS

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Programming	<i>Python, C/C++, Java, Linux CLI</i>
5 years of experience with data structures, algorithms, and simple tools (e.g., sorting, trees, linked lists)	

Web Development	<i>HTML, CSS, JavaScript, PyMongo</i>
3 years of experience with creating websites either from scratch or using various online technologies and frameworks (e.g., HTML5, CSS3, jQuery, Bootstrap, WordPress, MongoDB, PyMongo)	

Graphics	<i>Adobe PhotoShop, Inkscape</i>
3 years of experience in creating images or logos for various projects	

Video/Audio Editing	<i>Adobe After Effects, Audacity</i>
3 years of experience in creating short films, gaming videos , and background audio	

IDEs/VC	<i>Eclipse, IntelliJ, Git</i>
4 years of experience in writing code, managing files, and general project for various programming applications and projects	

Editors

*Vim, SublimeText, Geany*

3 years of experience in writing code for various programming applications and projects

## TEAMS

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*Computer Science Club*

*10<sup>th</sup> Grade*

Worked with peers on solutions to previous Stanford ProCo problems and taught others about topics in computer science

*Robotics*

*9<sup>th</sup> Grade*

Worked with peers on the 2013 FRC competition Ultimate Ascent to design and program an autonomous and teleoperated robot and represented school at Sacramento Valley Regional competition

*Science*

*8<sup>th</sup> Grade*

Represented school in the National US Department of Energy Science Bowl as physics and math question specialist

## PROJECTS

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*Max Keyboard Configurator*

Personal

*Summer 2014*

Worked with Max Keyboards to create a web-based utility to create customized keyboard designs with a variety of different layouts ([demo](#), [Max Keyboard](#))

*Georgia Tech Health Dashboard*

Georgia Tech *Summer 2014*

Worked at Georgia Tech to create a free and open-source end-to-end software system for monitoring long term care patients in smart homes ([report here](#)).

*Robotics Camp Mentor*

School

*Summer 2014*

Helped younger children (from 4th to 8th grade) with creating simple robots and teaching them simple engineering concepts

*K.A.R.E*

Personal

*Spring 2014*

Created a GitHub recommendation engine by using the GitHub API to fetch data about user “starring” to generate good-quality results ([K.A.R.E](#))

*Password Manager*

Personal

*Spring 2014*

Wrote a GUI-based password manager in pure Python using 128-bit AES encryption and 256-bit password encryption with a WxWidgets frontend ([SecureWallet](#))

*Robotics Camp Mentor*

School

*Summer 2013*

Helped younger children (from 4th to 8th grade) with creating simple robots and teaching them simple engineering concepts

*Display Latency Testing*

NVIDIA

*Summer 2012*

Used photoelectric sensors and HDMI signal equipment to test response time on various LCD TVs in various display modes (cinema mode, vivid mode, and gaming mode)

*3D Anaglyph Generation*

School

*Fall 2010*

Shot 2D images at varying horizontal separations, combining them into 3D anaglyphs, and using the ITU.BT 500 image quality scale to deduce the optimal distance (2.5") for human viewing ([report here](#))

## EXTRACURRICULAR

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Reading

Music

Movies

Video Games

Guitar

Biking

Swimming