Ritwik Dutta

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Objective

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

Education

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

Skills

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

Web Development *HTML, CSS, JavaScript, PyMongo*
4 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 *Adobe PhotoShop, Inkscape*
4 years of experience in creating images or logos for various projects

Video/Audio Editing *Adobe After Effects, Audacity*
4 years of experience in creating short films, gaming videos , and background audio

IDEs/VC *Eclipse, IntelliJ, Git*
5 years of experience in writing code, managing files, and general project for various programming applications and projects

Editors *Vim, SublimeText, Geany*
5 years of experience in writing code for various programming applications and projects

TEAMS

Computer Science Club *11th and 10th Grade*
Worked with peers on solutions to previous Stanford ProCo problems and taught others about topics in computer science

Robotics *9th 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 *8th Grade*
Represented school in the National US Department of Energy Science Bowl as physics and math question specialist

PUBLICATIONS

Ritwik Dutta and Marilyn Wolf, "An Extensible Software Infrastructure for Computer Aided Custom Monitoring of Patients in Smart Homes," *International Conference on Systems and Software Engineering (ICSSE)*, Miami, USA, March 9-10, 2015. | Paper | Presentation

PROJECTS

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 (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 (Health Dashboard Homepage).

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 (project writeup)

EXTRACURRICULAR

Reading
Music
Movies
Video Games
Guitar
Biking
Swimming