Tushar Pankaj

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Education

Westview High School Class of 2015 GPA: 4.16 August 2011 to present

Relevant Classes at School

AP Physics B, 2012 (Grade: A, AP score: 5/5), AP Chemistry, 2013 (Grade: A, AP score: 5/5), AP Calculus BC, 2013 (Grade: A, AP score: 5/5), AP Physics C (enrolled), AP Computer Science A (enrolled), UCSD Extension Math 20C – Multivariable Calculus (enrolled)

Other Relevant Classes

Stanford Continuing Studies Program - Google Android App Development with Java July 2012
 Android application development course run by iD Programming Academy. Programmed a simple 3D game for Android.

Selected Projects

- FIRST Robotics Competition Targeting System, Team 3341 January 2012 to March 2013 Implemented camera based targeting in C++ on a Raspberry Pi running Arch Linux and OpenCV. Also implemented shooter control in Java which ran on NI cRIO robot controller. The NI cRIO controller and Raspberry Pi communicated via NetworkTables. All code was version controlled by Git and hosted on GitHub. The targeting and shooting system were used both in the autonomous mode and the remote controlled mode by Team 3341 during San Diego regional competitions, with partial success in 2012 and full success with all components in 2013.
- FIRST Tech Challenge Scouting Android Application, Westview Robotics February 2013

 Designed and implemented an Android app for the scouting division of the robotics team which connected to a MySQL server and parsed and formatted table data. Included a form which allowed users to insert data into the database and view the new entries.
- Westview Key Club Android Application March 2013
 Designed and implemented an Android app which downloaded, parsed, and displayed community service event information from Google Calendar. Released application to Google Play. Application is called Westview Key Club.
- Balboa City School Bell Server
 Supervisor: Mr. Paul Michael

 June 2011 to August 2011

Designed and implemented a web based school bell system for Balboa City School. Used HTML, CSS, JavaScript, and PHP to write a web interface which ran on a Mac with Fedora Linux. Wrote a Bash backend to play the school bells and connected the server to school speaker system. This bell system went into use by Balboa City School for their school bell.

Skills

Technologies

Proficient in C++, Java, Android programming, Git, HTML, CSS, JavaScript, PHP, Bash, MySQL, Linux (including system administration), Windows, Mac, LATEX, Microsoft Office

Familiar with Python, Subversion, Mercurial, Go, Matlab, Sage Mathematics

Other

- Excellent ability to learn new technologies and use them
- Ability to learn new topics in a wide variety of subjects through self study. Self studied the first level calculus course during Summer 2012 and skipped to Calculus BC. Also learned all aformentioned technologies through self study.

Awards and Honors

- Honor Roll (2011–2012 and 2012–2013 school years)
- Software Specialist, Westview Robotics, 2013, Awarded by mentors
- Innovator of the Year, Westview Robotics, 2012, Awarded by mentors
- \bullet Science Olympiad Event, $16^{\rm th}$ place, 2010
- County of San Diego Board of Supervisors Certificate of Appreciation, 2010
- FIRST Tech Challenge, 1st place, San Diego Regional, Team 3712, 2009–2010
- FIRST Lego League, Best Research Award, Team 7471, 2008

Extracurricular Activities

- Westview Cybersecurity Club, 2011-now
- Westview Programming Club, 2012–2013
- Westview Application Development Club, 2013-now
- Westview Key Club, 2012–now