Sagar Garg

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Objective

An educational internship in the field of computer science and engineering.

Education

Academy of Engineering and Design Technology (AEDT) — 2012-Currect
Bergen Country Academies — Hackensack, NJ

- GPA: 3.62

Related Coursework

Introduction to Engineering Design I – Gained an understanding of Autodesk Inventor and basic HTML and CSS.
Digital Electronics – Gained an understanding of basic circuits including, resistors, diodes, transistors, and capacitors.
Engineering Technology – Learned the various components of a computer, and designed and built a Panasonic robot.
Intro to Robotics – Built various robots using Legos and gears, and built and programmed a Sumo Bot to travel in a maze.
Introduction to Engineering Design II – Refined Inventor skills by reverse engineering an electric drill.
Principles of Engineering – Gained an understanding of material science, designing bridges, pneumatics, and hydraulics.
Intermediate EE– Gained an understanding of current, passive/active components, and embedded control.
Manufacture Process CIM – Gained an understanding of AutoCAD, CNC, and various other engineering skills.
Intro to Java – First programming course, learning the basics of Java programming.
Intro to Python – Next programming language, developing the skills needed for Flask.
Android Application Development – Using Java skills to develop android apps.
AP Calculus BC – This course is a full-year rigorous introduction to the fundamentals of differential and integral calculus.
AP Chemistry – Gained a further understanding of various chemistry topics to prepare for the AP test.

Skills

- HTML5
- CSS3
- Java
- Python
- JavaScript
- CAM
- Autodesk Inventor
- AutoCAD
- Computer Numerical Control (CNC)
- Arduino
- Android Development
- 3D Printing
- Soldering
- SolidWorks

Extracurricular Activities

South Asian Club (SAC) – SAC aims to raise funds for a charity while promoting cultural awareness at my school. Developed and currently maintain the website for my school's cultural club. The website's main function is to promote the club and give updates about future events. — 2012-Current
USA Computing Olympiad (USACO) – A monthly algorithmic competition for high school students where students solve algorithmic based programming problems. — 2013-Current
American Computer Science League (ACSL) – A national competition where programming tasks and computer science problems are solved. — 2014-Current
Quiz Bowl – A fast-paced question-based competition where teams vs with each another to answer questions involving a wide-range of subjects. — 2012-Current
HackBCA – Help organized HackBCA, a high school only hackathon. — 2014-Current

Projects

LED Cube – Built a 4x4x4 LED cube that uses an Arduino Uno micro-controller to program the LEDs.
Maze Solver – Created at HackRU Spring, designed a maze generator and solver using Java.
Clean Sleep – Created at HackRU Fall, created a web application that ranks hotels based on how clean the room is, designed for users to search for hotels using google maps.
Textbook Trader – Created at YHack, created a web application that helps users sell college textbooks within the college.
Unit Conversion App – First android application that allows users to switch between multiple units.

Volunteer Service

Liberty Science Center – Had a variety of tasks including helping children and adults in exhibits, and being a pocket scientist; learning about STEM at the same time. — Summer 2013
Hackensack University Medical Center – Learned about the business of a hospital, and was able to talk to several doctors about their experience — Summer 2014