

# Sawaiz Syed

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## Work Experience

Georgia State University, Department of Physics

ATLANTA, GEORGIA

**Hardware Developer**

January 2014 – present

Design a low power embedded system mesh to communicate with nodes and provide radiation readings for analysis. CAD layout and electronic design of high voltage and radio communication systems. Design for reducing cost of final product for production. Software development using C, C++. Create documentation for future users and development.

Fry's Electronics

ALPHARETTA, GEORGIA

**Sales Associate**

December 2013 – February 2014

Assisted customers with selection of electronic and computer component and tools, consumer and enterprise grade networking equipment based on their needs.

Georgia State University, Physics Department

ATLANTA, GEORGIA

**Teaching Assistant for PHYS-1112K**

February 2013 – May 2013

Created challenge questions to check students' comprehension of physics concepts. Graded labs, tests and other assignments in a timely manner.

Roswell Telemetry

ROSWELL, GEORGIA

**Embedded Systems Programmer & Electrical Engineer**

February 2012 – September 2012

Port Atmel .Net Micorframework for over the air reprogramming. Constructed and maintained prototyping equipment including an aluminum forge and a 3D printer. QC and Debug failed hardware. Research materials for future improvement of products. Produced and tested field electronics.

Kroger Company

ALPHARETTA, GEORGIA

**Courtesy Clerk**

June 2010 – January 2011

Managed front-end supplies and replenished as needed. Maintained clean and safe environment as required by standards.

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## Education

Georgia State University

ATLANTA, GEORGIA

**Bachelor of Science, Physics & Computer Science**

Expected Graduation 2015

Alpharetta High School

ALPHARETTA, GEORGIA

**Dual Diploma: College Prep & Engineering**

Spring 2011

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## Skills

**Technical:** Electronics Design and prototyping, Circuit Design, Soldering, PCB Layout (DipTrace, Eagle CAD), Embedded Systems (Atmel, Arduino), Workstation, server and network management and construction, Robotics, CNC milling/cutting/printing, Remote Control and autonomous flight, Molding and Casting, Photography and Filmography.

**Programming:** C, C++, Java, Python, XML, SQL, Android SDK, G-Code, L<sup>A</sup>T<sub>E</sub>X, POV-Ray, FTP, GIT, SVN.

**Software Packages:** Autodesk Suite, Adobe Suite, Eagle, Blender, Eclipse, IntelliJ IDEA, Audacity, SketchUp, Solidworks MS Office Suite, CAM, Linux/Unix.

**Natural languages:** English, Urdu (*mother tongue*), French (*elementary level*)

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## Achievements

CITI Responsible Conduct of Research certification, AP Scholar with Distinction (6 Exams), 1<sup>st</sup> place Georgia Technology Fair in Robotics with Centrics IT scholarship (2010).

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## Organizations

Society of Physics Students (Treasurer), Science Olympiad (Lead Engineer), National Science Honor Society, Science Olympiad Judging – 62 Hours, Recycling Club – 60 Hours, SPS Tutoring – 20 Hours

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## Relevant Experiences

Designing and building wireless 40W laser cutter (85% complete). Have built, tested, and placed into production three 3D printers (Mendel Max, Mendel, Kossel Mini). Hardware development for Rep-Rap project. Setup and manage home networking and media, data, and backup servers hosted on domain.