

# Sawaiz Syed

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## Work Experience

Georgia State University, Department of Physics

ATLANTA, GEORGIA

### Hardware Developer

January 2014 – present

Design of 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. Reducing cost of final product by 80 % for production. Develop Software using C, C++. Write 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

Ported Atmel .Net Microframework for over the air reprogramming. Constructed and maintained prototyping equipment including an aluminum forge and a 3D printer. Tested and debugged failed hardware. Researched 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. Aided customers with finding and purchasing products.

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## Education

Georgia State University

ATLANTA, GEORGIA

### Bachelor of Science, Physics

Spring 2015

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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](#), Windows, Linux/Unix, OSX.

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

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## Achievements

[CITI Responsible Conduct of Research](#) certification, Amateur Radio Technician License ([KM4GRB](#)), 1<sup>st</sup> place [Georgia Technology Fair](#) in Robotics with [Centrics IT](#) scholarship (2010).

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## Organizations

Society of Physics Students GSU (Treasurer, VP, Sysadmin); Science Olympiad (Lead Engineer); National Science Honor Society; Science Olympiad Judging – 62 Hours; Recycling Club – 60 Hours; SPS Tutoring – 45 Hours

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## Relevant Experiences

Designing and building wireless 40W laser cutter (85% complete). Have built, tested, and placed into production four 3D printers ([Mendel Max](#), [Mendel](#), [Kossel Mini](#)). Developing hardware for [Rep-Rap](#) project. Setup and managed home networking and media, data, and backup servers. Designed re-branded [SPS](#) website.