

Gabriel Gonzalez

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OBJECTIVE	I am seeking a software engineering position where I can make a positive contribution to the aerospace industry by applying my knowledge of programming and astrophysics.	
COMPUTER SKILLS	<p>Languages: C, C++, Java, Python, LaTeX, Bash, Assembly, IDL</p> <p>Software: GNU Debugger (GDB), Git, Arduino IDE</p> <p>Operating systems: Unix, Windows, OS X</p> <p>Courses: Computer Systems, Data Structures and Algorithms, Electromagnetic Fields and Waves, Methods of Theoretical Physics, Quantum Physics, Statistical Thermodynamics</p>	
EDUCATION	<p>Boston University <i>BA : Astronomy and Physics</i></p> <ul style="list-style-type: none">• GPA: 3.16• Expected graduation: May 2015	September 2011 – present
HONORS	<p>Boston University <i>Dean's List</i></p>	Fall 2011
EXPERIENCE	<p>BU Computer Science Department, Boston, MA <i>Software Engineer</i></p> <ul style="list-style-type: none">• Testing and modifying the kernel of a multi-node library runtime, called EbbRT, that will support exascale applications, such as those found in High Performance Computing centers.	January 2015 – present <i>~1 month</i>
	<p>BU Satellite for Applications and Training, Boston, MA <i>Software Engineer</i></p> <ul style="list-style-type: none">• Developing communications and sensory software for eight picosatellites that each house a wireless sensor nodes (WSN). The WSN itself contains an Atmel ATmega 2560 chip, an RFM22B radio to send and receive data, an LSM9DS0 gyroscope/accelerometer/magnetometer sensor, and a global positioning system.• Developing communications software for Boston University's ANDESITE nanosatellite that will receive the data that was gathered by each picosatellite, and send it down to the ground station using the GlobalStar Network.• Creating a simulation of in-flight processes that will occur when the nanosatellite and picosatellites are in orbit.• Developing graphical program that will display the magnitude of the magnetic field data detected by the LSM9DS0 module, as a function of time.	September 2014 – present <i>~5 month</i>
	<p>BU Center for Space Physics, Boston, MA <i>Lab Assistant</i></p> <ul style="list-style-type: none">• Constructing an algorithm that expresses the wavelength of light as a function of pixel location on the Venus Spectral Rocket (VeSpR) imager CCD.• Developing software to conduct post flight analysis of the VeSpR mission result data.	May 2014 – present <i>~9 months</i>
	<p>BU Center for Space Physics, Boston, MA <i>Research Assistant</i></p> <ul style="list-style-type: none">• Constructing an algorithm to automatically remove scattered background light in images taken by the Mars Atmosphere and Volatile Evolution (MAVEN) Imaging Ultraviolet Spectrograph (IUVS) instrument.	September 2014 – October 2014 <i>~3 month</i>
	<p>BU Center for Space Physics, Boston, MA <i>Lab Assistant</i></p> <ul style="list-style-type: none">• Repaired electrical and mechanical defects in a damaged vacuum chamber that will be used for satellite systems testing.• Developed software for an Arduino Mega 2560 to control four stepper motors.	Summer 2014 <i>~3 months</i>

Gabe's Status Bar**September 16, 2014**

- Status bar that supports custom icon widgets and event signals, meant to replace the non-graphical status bar that comes with Dynamic Window Manager (DWM).
- **Source:** github.com/gabeg805/Gabes-Status-Bar

Gabe's Login Manager**August 7, 2014**

- C based login manager I created for fun in order further customize my Linux operating system.
- **Source:** github.com/gabeg805/Gabes-Login-Manager

USB Device Automounter**April 10, 2014**

- On an Arch Linux system, utilizes *systemd* and *systemctl* to watch the */dev/block* directory. When a device is plugged into the computer, a file will be created in that directory that points to the device. Device information will then be gathered and logged, and then the device will be mounted.
- **Source:** github.com/gabeg805/Automount

See all of my other projects on **Github!**