

# Gabriel Gonzalez

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OBJECTIVE	I am seeking a software engineering position where I can make a positive contribution to the technology industry by applying my knowledge of programming, mathematics, and astrophysics.		
COMPUTER SKILLS	<b>Languages:</b> C, C++, Java, Python, Bash, IDL, LaTeX, Assembly <b>Software:</b> Git, SVN, GNU Debugger (GDB), Valgrind <b>Operating systems:</b> Unix, Windows, OS X		
EDUCATION	<b>Boston University</b> <i>BA : Astronomy and Physics</i>	<b>May 2015</b>	
WORK EXPERIENCE	<b>NASA Goddard Space Flight Center</b> <i>Software Engineer</i>	<b>Greenbelt, MD</b> <i>June 2015 – present</i>	
	<ul style="list-style-type: none"><li>Integrating an orbit simulation program, 42, with flight software in order to enable CubeSat Hardware-in-the-Loop testing.</li></ul>		
	<b>Boston University Computer Science Department</b> <i>Software Engineer</i>	<b>Boston, MA</b> <i>January 2015 – May 2015</i>	
	<ul style="list-style-type: none"><li>Implemented a programmable interval timer (PIT) clock for the kernel of the Elastic Building block Runtime (EbbRT), a multi-node library runtime.</li><li>Completed the EbbRT clock interface which initializes the correct clock (PIT or paravirtualized clock), depending on the device's hardware.</li></ul>		
	<b>Boston University Satellite for Applications and Training</b> <i>Software Engineer</i>	<b>Boston, MA</b> <i>September 2014 – May 2015</i>	
	<ul style="list-style-type: none"><li>Created a simplified day-in-the-life simulation for the command and data handling subsystem.</li><li>Developed the communications protocol between the main ANDESITE nanosatellite and eight picosatellites.</li><li>Implemented the sensory data collection algorithm for eight picosatellites.</li></ul>		
	<b>Boston University Center for Space Physics</b> <i>Lab Assistant</i>	<b>Boston, MA</b> <i>May 2014 – February 2015</i>	
	<ul style="list-style-type: none"><li>Developed an algorithm to express the wavelength of light as a function of pixel location on the Venus Spectral Rocket (VeSpR) imager CCD.</li><li>Created a model of the expected spectra (1000 – 2500Å) for Venus and Altair.</li><li>Created a model for the payload quantum efficiency, reflectivity, and prism efficiency.</li></ul>		
	<b>Boston University Center for Space Physics</b> <i>Research Assistant</i>	<b>Boston, MA</b> <i>September 2014 – October 2014</i>	
	<ul style="list-style-type: none"><li>Developed an algorithm to automatically remove scattered background light in images taken by the Mars Atmosphere and Volatile Evolution (MAVEN) Imaging Ultraviolet Spectrograph (IUVS) instrument.</li></ul>		
	<b>Boston University Center for Space Physics</b> <i>Lab Assistant</i>	<b>Boston, MA</b> <i>June 2014 – August 2014</i>	
	<ul style="list-style-type: none"><li>Developed software for a microcontroller to control the inner housing that holds items placed in the vacuum chamber.</li></ul>		

WORK EXPERIENCE	<b>Boston University Center for Space Physics</b>	<b>Boston, MA</b>
	<i>Lab Assistant</i>	<i>June 2014 – August 2014</i>
	<ul style="list-style-type: none"><li>◦ Created a CAD model of the vacuum chamber's switchboard.</li><li>◦ Tested the operating state of the damaged vacuum chamber.</li><li>◦ Replaced defective vacuum chamber equipment.</li></ul>	
	<b>Boston University Center for Space Physics</b>	<b>Boston, MA</b>
	<i>Research Assistant</i>	<i>February 2012 – December 2013</i>
	<ul style="list-style-type: none"><li>◦ Developed an algorithm to analyze the response of the Mars ionosphere to solar flares, utilizing radio occultation measurements made by the Mars Global Surveyor (MGS).</li><li>◦ Categorized solar flare intensities based on the Flare Irradiance Spectral Model's (FISM) flare strength and the electron density enhancement in the M2 region of the ionosphere.</li><li>◦ Analyzed the relationship between solar flare intensity and Earth-Sun-Moon angle, as well as solar flare intensity and solar zenith angle.</li><li>◦ Created a map of the electron density in the Venus upper ionosphere using Pioneer Venus Orbiter (PVO) Ion Mass Spectrometer (OIMS) data.</li><li>◦ Compared the OIMS data to the Orbiter Electron Temperature Probe and Orbiter Retarding Potential Analyzer (ORPA) ionospheric data.</li><li>◦ Determined the potential invalidity of the PVO dataset due to its skewed results when compared to VIRI and VEX.</li></ul>	
PROJECTS	<b>Elysia</b>	
	<i>Login Manager</i>	
	A highly configurable login manager.	
	<b>Atlas</b>	
	<i>Status Bar</i>	
	Meant to be a replacement for the dwm text statusbar.	
	<b>Aria</b>	
	<i>Notification Bubble</i>	
	Meant to be a replacement for the dwm text statusbar.	