

Gabriel Gonzalez

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OBJECTIVE

I am seeking a software engineering position where I can apply my knowledge of physics, mathematics, and programming to solve new problems, improve existing code, and effectively contribute in a team environment. My goal is to expand my understanding of system automation and back-end to front-end integration.

COMPUTER SKILLS

Languages: C, C++, Java, Python, LaTeX, Bash, Assembly, IDL

Software: Arduino IDE, Git, DrJava

Operating systems: Unix, Windows, OS X

Courses: Computer Systems, Data Structures and Algorithms, Electromagnetic Fields and Waves, Intermediate Mechanics, Methods of Theoretical Physics

EDUCATION

Boston University

September 2011 – present

BA : Astronomy and Physics

- **GPA:** 3.17
- **Expected graduation:** May 2015

HONORS

Boston University

Dean's List

Fall 2011

EXPERIENCE

BU Satellite for Applications and Training, Boston, MA

September 2014 – present

Software Developer

~3 month

- Developing software for eight Arduino Mega 2560 boards that control when magnetometer, gyroscope, and GPS data is gathered and sent to the central BeagleBone Black unit.
- Developing software for the central BeagleBone Black unit to receive the data gathered by the Arduino Mega 2560 boards and send it back down to Earth using the GlobalStar Network.

BU Center for Space Physics, Boston, MA

September 2014 – present

Research Assistant

~3 month

- Constructing an algorithm to automatically determine the scattered light in an image taken by the IUVS echelle spectrograph.

BU Center for Space Physics, Boston, MA

Summer 2014

Lab Assistant

~4 months

- Repaired electrical and mechanical defects in a damaged vacuum chamber that is used for satellite systems testing.
- Developed software for an Arduino Mega 2560 to control four stepper motors.

BU Center for Space Physics, Boston, MA

May 2014 – present

Lab Assistant

~7 months

- Determining the wavelength of light as a function of pixel location on the imager CCD.
- Developing software to analyze the Venus Spectral Rocket mission result data.
- Post flight calibration on the Venus Spectral Rocket's echelle imager and spectrograph.

PROJECTS

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 to customize my Linux operating system.
- **Source:** github.com/gabeg805/Gabes-Login-Manager

USB Device Automounter

April 10, 2014

- When a USB device is plugged into a Linux system, a file is created in `/dev` and a symbolic link is created in `/dev/block`. My program waits for a file to be created in `/dev/block`, mounts the device, and prints the device information to a log.
- My program is composed of several bash scripts that use native commands to Arch Linux, such as `systemd` and `systemctl`.
- **Source:** github.com/gabeg805/Linux-Scripts/tree/master/programs/automount

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