



My name is Mason Nixon and I am from Wetumpka, AL in the USA. I received my undergraduate degree from Auburn University in Electrical Engineering and in Wireless Engineering in May 2011. My major at Georgia Tech is in Electrical Engineering and I am currently studying robotics. The following is my work experience from my resume.

I have experience with C++, Visual C++ (GUI Design), MATLAB, and Assembly. I have worked with AutoCAD to make design schematics and floor plans for security systems. I have skills in programming microcontrollers such as the Atmel chipset, Motorola chipset, and PIC chips.

Most people do not know that I love to play and sing on a solo acoustic guitar.

WORK EXPERIENCE (REMUNERATED):

- **Department of Defense (DoD)**

- Space and Missile Defense Command (SMDC)**

- Concepts Analysis Lab (CAL) - May 2010 to August 2010**

- General Engineer Contractor* – Designed and analyzed a free space optical data transmission system for a satellite-to-ground link. I worked on various other projects involving satellites and lasers. I also performed simulation and interpretation with MATLAB and Google Earth. This job requires a security clearance at the level of **SECRET** which was obtained in April 2010.

- May 2011 to August 2011 – Aided in the design of a high-altitude balloon payload that acted as a simulated satellite. The payload included: Atmel microcontroller, GPS IC with helical antenna, temperature sensors, accelerometer, gyro, and a 900 MHz transceiver. I also operated and logged data from an interferometer radar that acted as the sole truth sensor in a field test of multiple radars in detecting rockets, artillery, and mortar.

- **M.C. Dean Inc. - May 2009 to August 2009**

- Design Engineer Intern* – Aided other Design Engineers in designing security and control access systems with extensive use of AutoCAD 2009. I revised projects to work with an infrastructure maintenance management system and helped design control access systems. I also performed quality control and revision of design submissions. It is notable that the projects that I handled and worked with contained sensitive information.

- **Alabama Department of Transportation (ALDOT)**

- Materials and Tests Bureau Liquid Asphalt Lab –**

- August 2007 to August 2008

- Professional Civil Engineer Trainee* - Performance of a wide variety of liquid asphalt and plastics tests in addition to asphalt disposal. Tests involve use of equipment such as Dynamic Shear Rheometer, Brookfield Viscometer, Saybolt Viscometer, Ductilometer, etc. I also performed distillations of Pavon and various other emulsion types of asphalt. Also wrote lab contract proposals, test failure reports, and created lab floor plan.

WORK EXPERIENCE (VOLUNTEER):

- **AUM Engineering Club - January 2008 to August 2008**

- President & Co-founder* - Began and oversaw team projects with teams of 5 or more on such tasks as the conversion and implementation of petroleum-burning vehicles into ethanol burning vehicles into the AUM fleet, biodiesel vehicle conversion, and campus wide recycling.

- **AU Student Projects and Research Committee (SPaRC) –**

January 2009 to Present

Project Manager – Delegated and aided a team of 12+ students in the design of chassis, drive systems, power systems, and control systems of an autonomous solar-powered robot for the IEEE Hardware Design competition. Notable experience gained on microcontrollers such as the Arduino, Motorola HCS12, and the PIC 16 bit. Also experience gained in construction of solar cell arrays and power systems. I also constructed and demonstrated a guitar effect clone.

Project Idea

My idea is a barcode scanner that keeps track of what you currently have in your pantry and refrigerator and what you are throwing away. This way you can track what you need to purchase the next time you go to the store. This information is linked with your phone and updated via Wifi whenever you make any changes so that you do not need to be home to have access to your grocery list.

Number of Computers = 4