

Cedric A. Ortiz

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Education

Bachelor of Science in Electrical Engineering

Southern Illinois University, Carbondale, IL

GPA: 3.2/4.0

December 2019

Employment History

Naval Surface Warfare Center Crane Division, *Electrical Engineer Intern*, Crane, IN

May 2019 – August 2019

Being the world's third largest naval installation, NSWC Crane's objective is to provide acquisition engineering, in-service engineering and technical support for sensors, electronics, electronic warfare and special warfare weapons. NSWC Crane's testing and evaluation facilities are a critical part of United States' defense measures.

- Undertook a root cause failure analysis to determine the initial cause of the component malfunction and possible solutions
- Assisted and conducted various functionality and EMI tests for evaluation of incoming prototype equipment/components
- Revised and generated procedural documents to ensure equipment is handled properly and to mitigate expiration
- Analyzed different adhesives and their properties to determine the best substitute that complies with given constraints
- Performed acceptance testing on Solid State Drives to confirm the quality and performance that is claimed by manufacturer

Rosemont Public Safety, *Auxiliary Police Officer*, Rosemont, IL

March 2015 – May 2018

Although Rosemont Public Safety Department has a simple purpose, to protect life and property, the personnel strive to exceed expectations, cultivate community, and encourage communication.

- Patrolled designated districts and buildings to maintain a police presence and to deter possible criminal activity in the area
- Provided security and an assortment of assistance for public events, businesses, and/or general environments
- Directed traffic on congested roads during peak times of events or incidents to maintain a manageable level of order
- Occasionally responded to emergency calls and wellness checks to administer aid depending on the scenario at hand

Professional Skills

Languages C • C++ • HTML5 • CSS • SQL • MATLAB/Simulink

Software Microsoft Office • Visual Studio

Other Experience Python • Arduino • Excel VBA • GitHub • Unix • JavaScript

Projects

Excel VBA Automation

- Developed a program (**Excel VBA**) to automatically produce over two hundred unique Excel plots to be exported to Word
- Maximized department efficiency by reducing a six-hour individual procedure to a five-minute automated process

Snake Game

- Built a program (**C++**) exhibiting a unique version of the classic online game Snake
- Used SDL2 graphics library to manipulate a renderer and buffer to give the pixels the illusion of movement

Visualization of Sorting Algorithms

- Utilized SDL2 graphics library to create a window and renderer containing lines with randomly generated lengths
- Incorporated bubble, selection, and quick sort algorithms (**C++**) to categorize the existing lines based on length

Library Database

- Simulated (**C**) a virtual database for a library that provides the user insertion, deletion, organization, and printing functions
- Exported the entire recorded database to a selected text file arranged by the books' publishing year

Digital Dashboard

- Constructed a program (**Arduino**) that reads the vehicle's rpm from an Electronic Control Unit and translates to a digital display
- Correlated the vehicle's rpm to an array of LEDs by color which then all blink when the current gear reaches maximum rpm