



Experience

SOFTWARE ENGINEER, AVIDBEAM; CAIRO, EGYPT 2017 - PRESENT

- Developed a set of Python scripts to fully automate testing the ATUN platform and its plugins
- Generated analytic data proving performance flaws, data led to improvements in precision and recall for multiple ATUN plugins, such as the Number Plate Recognition plugin
- Collaborated with development team, analyzed video frame processing and identified bottleneck areas
- Developed a video splitter, using C++, FFMPEG and OpenML, which served up frames in thirty percent less time than usual via multithreading

PAID INTERN, DAR ENGINEERING; CAIRO, EGYPT SUMMER 2014

- Designed luminaire layout for office blueprint utilizing twenty five percent less power than the proposed plan while still fulfilling requirements
- Implemented power outlet circuit breakers in accordance to international building codes and regulations
- Considered power outage requirements, such as uninterruptible power supply systems for server rooms

Education

SPRING 2016

University of Wisconsin, Madison – B.S Double Major in Electrical Engineering & Computer Science

Projects & Coursework

Please visit the projects page on my website hammeramr.github.io/html/projects.html for source code and more projects I have worked on

FOUNDATION OF MOBILE SYSTEMS & APPLICATIONS

- Collaborated with team to produce Virgil, an android application aimed at improving the museum experience
- Integrated Estimate Proximity Beacons to automatically view relevant information as a user approach an exhibit
- Assisted in developing XML layouts for various menus in addition to exhibit object models

INTRODUCTION TO COMPUTER LANGUAGES & COMPILERS

- Worked with team member to produce a fully functional compiler for the "cats" educational computer language
- Generated a JLex lexical analyzer using regular expressions to convert raw text into tokens
- Produced a JavaCUP syntax analyzer by specifying a formal grammar for the "cats" language
- Developed a type and name checker to make sure identifiers conformed to the given rules related to scope, function parameters, loop conditionals and operational expressions

Skills

COMPUTER LANGUAGES

C++ (proficient), Python (proficient), Java (proficient), HTML (proficient), Bash (proficient), CSS (familiar), PHP (familiar), ARM Assembly (familiar), x86 Intel Assembly (beginner) and Verilog (beginner)

Libraries, Frameworks and APIs

OpenCV, OpenML, Bootstrap and FFMPEG