Richard Taylor
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Summary of Qualifications

- Dynamic problem-solving skills developed through Air Force flight operations execution and management
- Strong programming skills (Python, C++, Java) and knowledge of operating systems (Unix, Windows)
- Eight years leading crew members in mission preparation and training apprentice crewmen
- 3200 flying hours and 10.5 years of experience as enlisted senior flight-crew member aboard KC-10A in-flight refueling aircraft
- Security Clearance: Secret

Education

Drexel University   Philadelphia, PA
Bachelor of Science in Computer Engineering   Anticipated Graduation: June 2016
Cumulative GPA: 3.57

Honors

Dean's Scholarship, Drexel University, 2013
Distinguished Graduate, KC-10A Formal Training Unit, September 2012
78th Air Refueling Squadron Non-Commissioned Officer of the Year, 2012
Air Force Reserve Command Outstanding Airman Aircrew Award, 2007
514th Air Mobility Wing Outstanding Airman of the Year Award Nominee, 2007, 2009, 2012

Skills

- Programming Language: C++, Java, VHDL, MATLAB, Python, Bash, C, Assembly (Intel, MIPS, and HC12), Arduino
- Operating Systems: Windows, Unix
- Software: PSpice, MATLAB, ModelSIM, Microsoft Office (Excel, Word, Powerpoint, Publisher), LabVIEW, Arduino, PCSPIM, ICCv12, AxIDE
- Machines: KC-10A aircraft systems

Cat Laser Toy Project

- Designed fully automated cat toy by combining laser pointer, Arduino board, speaker, motion sensor, servos, and battery pack
- Evaluated project goals and potential problems to develop workable design within budgetary and time constraints
- Coded random movements in Arduino utilizing noise from unused input pin; calculated distances for sensors to operate
- Summarized results in PowerPoint and demonstrated project; created additional toys for friends

Projectile Project

- Developed application utilizing MATLAB software coupled with Arduino microcontroller
- Utilized MATLAB to consider analog readings from an accelerometer attached to Arduino microcontroller hardware board
- Generated graphical user interface to allow user to calibrate and manipulate accelerometer; visualize an associated animation and data display

Experience

United States Air Force Reserve - 78th Aerial Refueling Sq.   McGuire Air Force Base, NJ
In-flight Refueling Craftsman   May 2006 to Present
- Evaluate annual employee performance reviews for team members based on merit and adherence to standards
- Manages, schedules, and assigns training events for multiple apprentice crew members; ensure complete documentation
- Develops and administers lesson plans and classroom training seminars for apprentice crew members
- Initiates and oversees the implementation of all required policies and procedures for ten assigned team members

United States Air Force Reserve - 78th Air Refueling Sq.   McGuire Air Force Base
In-Flight Refueling Journeyman   December 2003 to May 2006
- Enlisted senior flight-crew member aboard KC-10A in-flight refueling aircraft
- 10.5 years and 3200 flying hours of experience
- Conducts comprehensive pre- and post-flight aircraft inspections; diligently adheres to all aircraft operating manuals and technical orders
- Sole crew member responsible for safe on-load and offload of up to 150,000 pounds of aircraft cargo and equipment
- Sole crew member responsible for safe operation of multi-million-dollar system to refuel aircraft in-flight
- Accomplishes dynamic missions goals through exceptional teamwork with crews of varying sizes and ranks
- Coordinates with multiple agencies to ensure timely accomplishment of all mission objectives

Digital Logic Design Project

- Designed a 6-input Input/Output Expander which allows for the individual control of up to 62 outputs utilizing 2x4 decoders, 64 J-K flips-flops, gates, clock
- Collaborated with partner to develop circuit diagram for the I/O expander as well as an in-depth technical report on its operation
- Resolved problems with lack of versatility and input design by changing T flip-flop to J-K flip-flop
- Wrote technical report and demonstrated design through Logisim

Relevant Coursework

Design With Microcontrollers   Advanced Programming for Engineers
Digital Systems and Projects   Computer Organization and Architecture
Digital Logic Design   Fundamentals of Materials
Evaluation and Presentation of Experimental Data I, II

Other Education

Burlington County College   Mt. Laurel, NJ
Pursued Associate of Science   January 2010 to June 2013
Cumulative GPA: 3.9

Community College of the Air Force   McGuire Air Force Base, NJ
Pursuing Associate of Applied Science: Aviation Operations   Anticipated Graduation - June 2015
Cumulative GPA: 4.0

Airman Leadership School   McGuire Air Force Base, NJ
Continued Professional Military Education   June 2008

KC-10A Formal Training Unit   McGuire Air Force Base, NJ
KC-10A In-Flight Refueling Instructor Rating   June 2012 - September 2012