
Michael Walker

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OBJECTIVE

Motivated individual seeking a production or leadership position with long-term career potential in a research and development environment where creative teams solve complex problems using cutting edge innovations in human factors, hardware, and software.

EDUCATION

University of Central Florida, Orlando, Florida (Fall 2005 – Spring 2011)

Majoring in Industrial Engineering - Completed 43 college credit hours during high school career.

EXPERIENCE HIGHLIGHTS

UCF Institute for Simulation and Training, Orlando, FL – Research Assistant

April 2007 – April 2009

Applied Cognition and Training in Immersive Virtual Environments Lab - <http://active.ist.ucf.edu>

- Developed C#/.NET based tool for parsing multiple gigabyte text file databases containing human performance data into SQL databases. Creation of a simulation and data comparison interface for data playback and analysis by researchers.
- Assisted development and technical documentation of C++ library implementation of Joint Architecture for Unmanned Systems (JAUS), a developing military communications standard for interfacing and control of unmanned air, water, and ground agents.
- Designed a compact x86-based Unmanned Ground Vehicle (UGV), capable of working within mixed reality environments and conforming to JAUS standards to be controlled by various Human-Computer Interaction (HCI) devices (Joystick, Wiimote, etc).
- Assisted in managing Army Research Lab (ARL) funded study researching the relation between varying levels of system automation and human workload, specifically in regards to operator control stations for UGVs performing reconnaissance.

Serious Games Research (RETRO) Lab – <http://www.seriousgamesresearch.com>

- Design, execution, and evaluation of studies on reducing costs and improving immersion in simulations and serious games.
- Research of techniques to improve collaboration among soldiers, researchers, and instructors through development of communities of practice and various emerging commercial web tools.

Imagine Creative Technologies, Orlando, FL – Developer, www.teqgames.com

March 2009 – October 2009

- Development of curriculum and simulation missions to train people in a virtual flight school environment
- Creation of .NET-based show ready simulator controllers for school and museum environments

FIRST Robotics Competition, Orlando, FL – Volunteer Coordinator, <http://www.usfirst.org>

September 2001 – Present

- Manager of finals field as volunteer coordinator at the annual Atlanta International Championship. The 2008 event hosted over 30,000 students and included political figures such as George H.W. Bush, numerous governors/representatives/senators, and corporate CEOs (Boeing, Google, etc.).
- Florida Regional Planning Committee Member to plan and execute annual competition hosted at the University of Central Florida with over 5,000 participants. Committee consists of representatives from NASA, Disney, Siemens, and UCF.
- Mentor students in mechanical design, programming in C/C++ languages, and mechatronics to control agents via teleoperation and closed loop automation functions through sensor feedback.
- In charge of recruitment, training, coordination, and retention of 150+ volunteers for annual Florida FIRST Regional.
- Team communications liaison to handle human relations between regional committee and Florida teams and offseason events.
- Volunteer more than 30 hours per week every January, February, and March mentoring high school students in design, fabrication, assembly, and programming of 120lb robots to compete in task-based competition
- Event manager and technical advisor for several official and offseason events in Florida.
- Published official "Introduction to Programming Guide" document for FIRST available for 1000+ teams to train students and mentors in techniques to get started with supplied robot control system and begin developing efficient code.
- Provide programming mentoring, support, and debugging for teams through online forums and instructional materials.
- Author of technical documents teaching theory and practical applications of sensors and algorithms in robot automation.

SUMMARY OF QUALIFICATIONS

- Extremely enthusiastic and hardworking individual able to quickly learn and apply new information in individual and team environments comprised of both technical and nontechnical members while leading teams on time-critical projects.
- Software development with programming background in C, C++, C#, VB, .NET, HTML, CSS, and Javascript.
- Extensive management experience in coordinating and training of volunteers and employees of various technical abilities.
- Strong knowledge base of bleeding edge technology, cloud computing, collaboration, training, and mobile device development.
- Proficient in AutoCAD, Autodesk Inventor, Solid Edge, Solid Works, Adobe Creative Suite, Microsoft Office Suite, Visual Studio, etc.
- Background in mechanical design, prototyping, fabrication, evaluation, and quality and efficiency improvements.
- Ability to convey technical concepts to non-technical audience through inspirational presentations and educational materials.