

# John E. Peabody Jr.

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## Education

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**Master's Degree in Software Engineering**  
Carnegie Mellon University, Pittsburgh, PA  
GPA 3.89

August, 2011

**Bachelor's Degree in Computer Engineering Technology**  
Wentworth Institute of Technology, Boston, MA  
Dean's List, GPA 3.5

August, 2006

## Professional Experience

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**Butterfly Network, Inc.**, Guildford, MA  
*Senior Research Scientist*

August, 2012 – Present

- Lead systems integrator

**MIT Lincoln Laboratory**, Lexington, MA  
*Software Engineer / Hardware Engineer*

August, 2006 – August, 2012

- Design, implement, and maintain C-based software for operational, real-time, radar systems
- Architect, document, and implement a data acquisition system and real-time pre-processing software chain to mitigate the effects of multipath when performing holography measurements
- Develop driver level software in C, to execute in a real time VxWorks environment, for custom hardware while maintaining functionality with legacy hardware
- Develop Python scripts and Graphical User Interfaces for device control over Ethernet and Serial interfaces
- Re-architect a distributed, multi-machine, Human Machine Interface controlling a PLC network for reliability and maintainability
- Design and implement a data acquisition system and graphical user interface for a through wall imaging radar providing situational awareness images at a 10Hz rate

**MIT Lincoln Laboratory**, Lexington, MA  
*Systems Administrator / System Engineer*

January, 2005 – August, 2006

- Support computers and network systems of an operational radar facility daily
- Interface with colleagues to understand and resolve information system issues
- Further develop an existing Perl TK program; expanding the functionality of the operational application
- Revise C++ code controlling a radar antenna through a serial interface in a real-time VxWorks environment
- Attain Secret Level D.O.D. Security Clearance

**CCI, INC.**, East Lyme, CT  
*Computer Technician*

2000 - 2004

- Diagnose and Repair customer's PCs'; both hardware and software
- Install hardware and configure software for personal and small business networks
- Assemble, configure and display new PCs' to company standards for selling purposes

## Community Outreach

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**FIRST Tech Challenge (FTC) Affiliate Partner**, MA

2011 – Present

- Official point of contact for all FTC teams within Massachusetts – 57 teams as of May, 2012
- Effectively communicate the structure of the season, from Qualifier Tournament to the State Tournament, and what is expected from each team
- Work with Qualifying Partners to organize and execute multiple Qualifying Tournaments, each supporting 20 teams
- Organize and execute a State Championship for 24 teams

- Provide technical support to FTC teams to ensure a positive experience during the FTC Season

### **FIRST Tech Challenge (FTC) Mentor**

2008 – Present

- Mentor FTC Team 2875 through the design, construction, and programming of a FTC robot
- Develop mechanical skills of eight high school students throughout the FTC season
- Develop software development skills of eight high school students throughout the FTC season
- Provide the opportunities for FTC team members to learn lifelong engineering skills such as software revision control (SVN), web design, mechanical and software design practices, and keeping engineering notebooks

### **Publications**

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G. L. Charvat, J. E. Peabody, J. Goodwin, and M. Tobias, "A real-time through-wall imaging system" *MIT Lincoln Laboratory Journal*, Fall 2011.

G. L. Charvat, J. Goodwin, M. Tobias, J. Pozderac, and J. Peabody "A real-time through-wall radar system using a time division multiplexed (TDM) multiple-input multiple-output (MIMO) antenna array; measured results and performance" Atlanta, GA: IEEE Radar Conference, May 2012.

G. L. Charvat, T. S. Ralston, J. E. Peabody. "Real-time through-wall imaging using an ultrawideband multipleinput multiple-output (MIMO) phased array radar system" Waltham, MA: IEEE International Symposium on Phased Array Systems & Technology, October 2010.

G. L. Charvat, T. S. Ralston, J. E. Peabody, Orlando FL: MSS Tri-Services Radar Symposium, June 2010.

### **Achievements / Awards**

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Eagle Scout rank achieved in 2002

*References Available upon request*