

# Ballard Blair

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**EDUCATION** **Massachusetts Institute of Technology / Woods Hole Oceanographic Institute,**  
Cambridge/ Woods Hole, MA  
Working towards *PhD in Electrical, Computer, and Ocean Engineering*  
June 2005 – Present (*Current GPA: 5.0/5.0*)

**Johns Hopkins University,** College of Engineering, Baltimore, MD  
*Master of Science in Electrical and Computer Engineering*  
Graduated: May 2005

**Cornell University,** College of Engineering, Ithaca NY  
*Bachelor of Science in Electrical and Computer Engineering*  
Cum Laude – Graduated: May 2002

**WORK** **Johns Hopkins Applied Physics Labs** – Laurel, MD

**EXPERIENCE** *Hardware Design Engineer* August 2002 – June 2005

- Implemented revolutionary design method for flight Actel FPGA
- Improved development and testing process
- Modified and implemented 802.11 device in Altera FPGA
- Lead engineer for space flight hardware

**Fitlinxx** – Stamford, CT

*Project Engineer*

September 2000 – December 2000

- Created new weight sensing system product

**PROJECTS AT**  
**MIT/WHOI**

**Reconfigurable Modem:** MIT Sea Grant Spring 2006

- Prototyped FPGA for DSP main circuitry

**SEABED Autonomous Underwater Vehicle:** WHOI Summer 2005-Spring 2006

- Renovated power distribution in electronics housing
- Improved software, hardware, and mechanical structure of vehicle
- On deployment team twice in Greece for archeological study

**Acoustic Communication:** WHOI Summer 2006-Present

- Created new method for LDPC codes in underwater communication
- Combined physical models with information theory for increased communication system performance

**SPECIAL**  
**SKILLS**

Languages: VHDL – Verilog – Java – C – -HTML – Labview

Circuit Design Software: Mentor Graphics Tools – Orcad – Magic -Spice

Altera/Actel/Xilinx Design Tools

Other Programs: MATLAB - Adobe Suite - Dreamweaver

**HONORS**

National Society of Collegiate Scholars - Eta Kappa Nu - National Merit Scholar  
Tau Beta Pi - Golden Key National Honor Society – Dean’s List - Eagle Scout

References available upon request